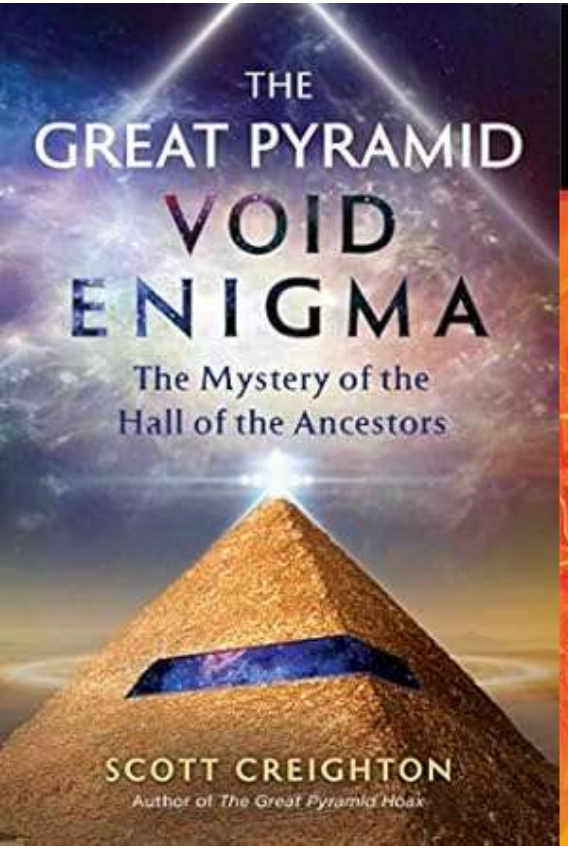
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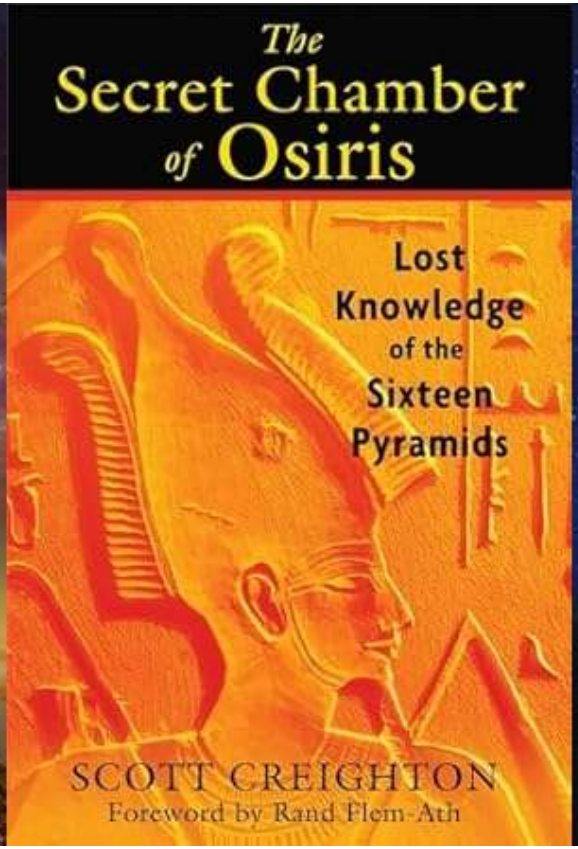
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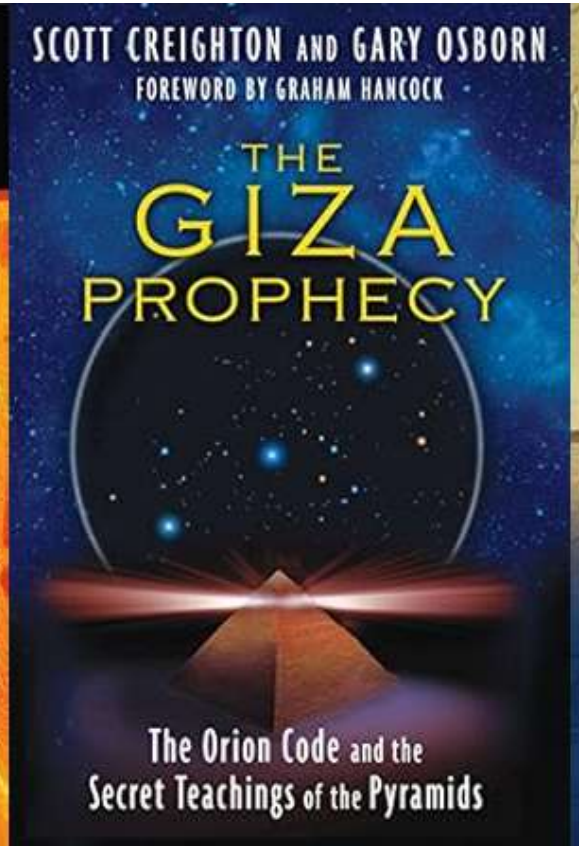
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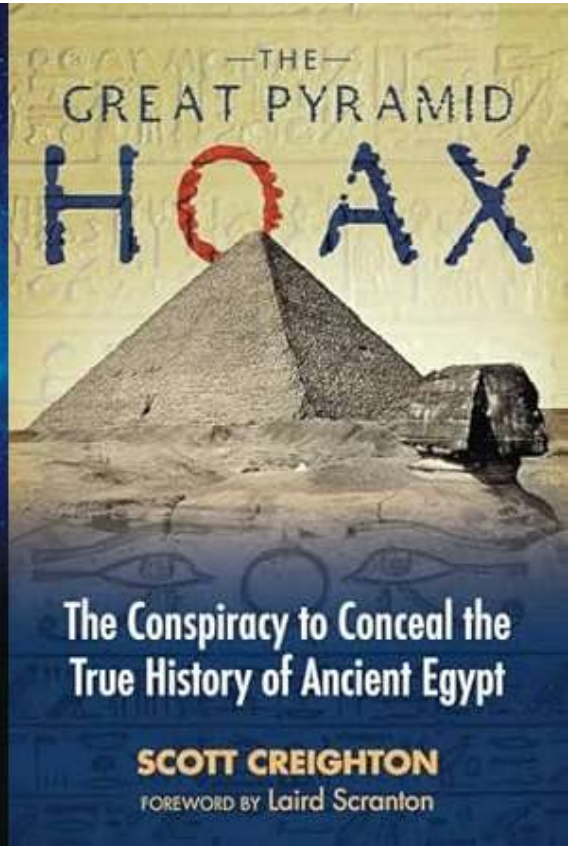
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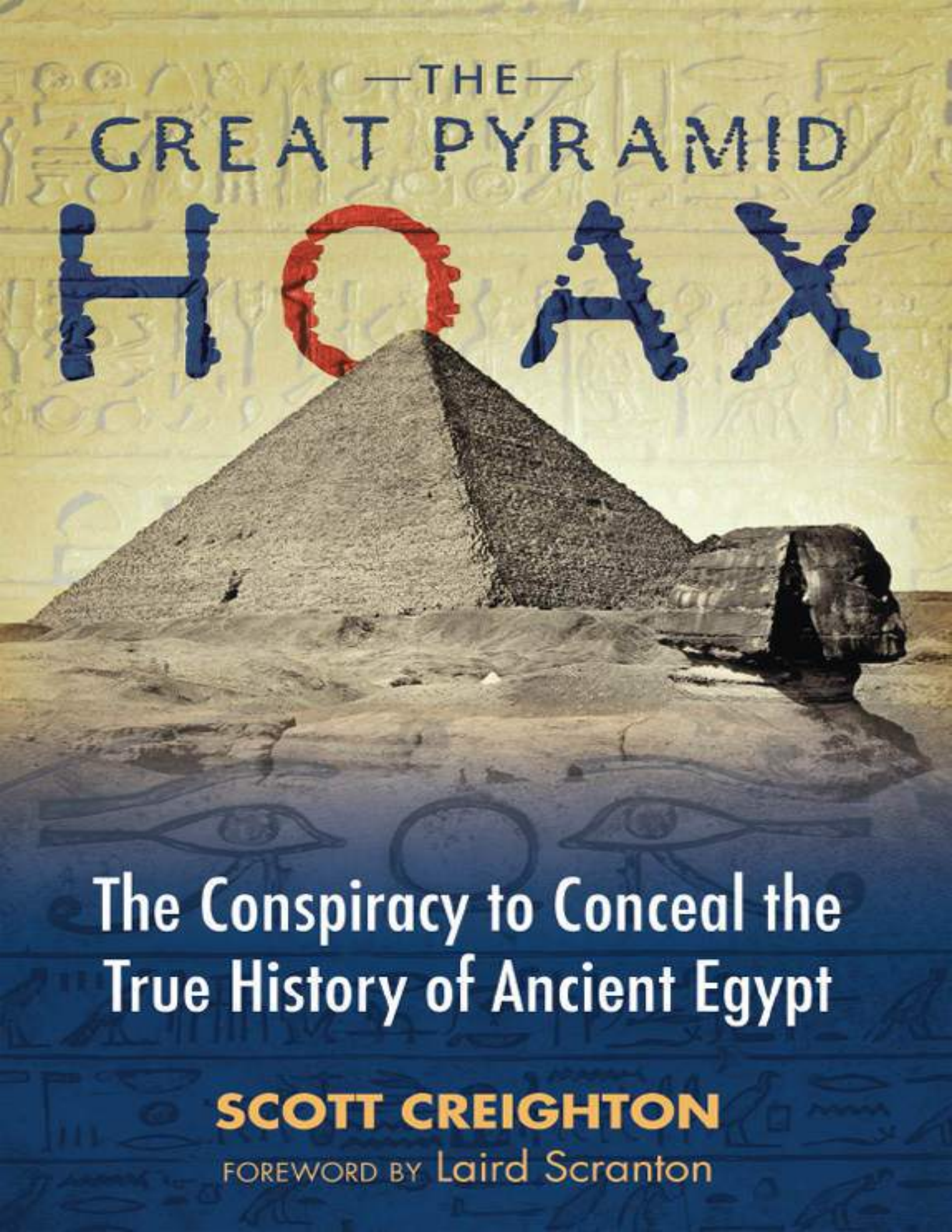
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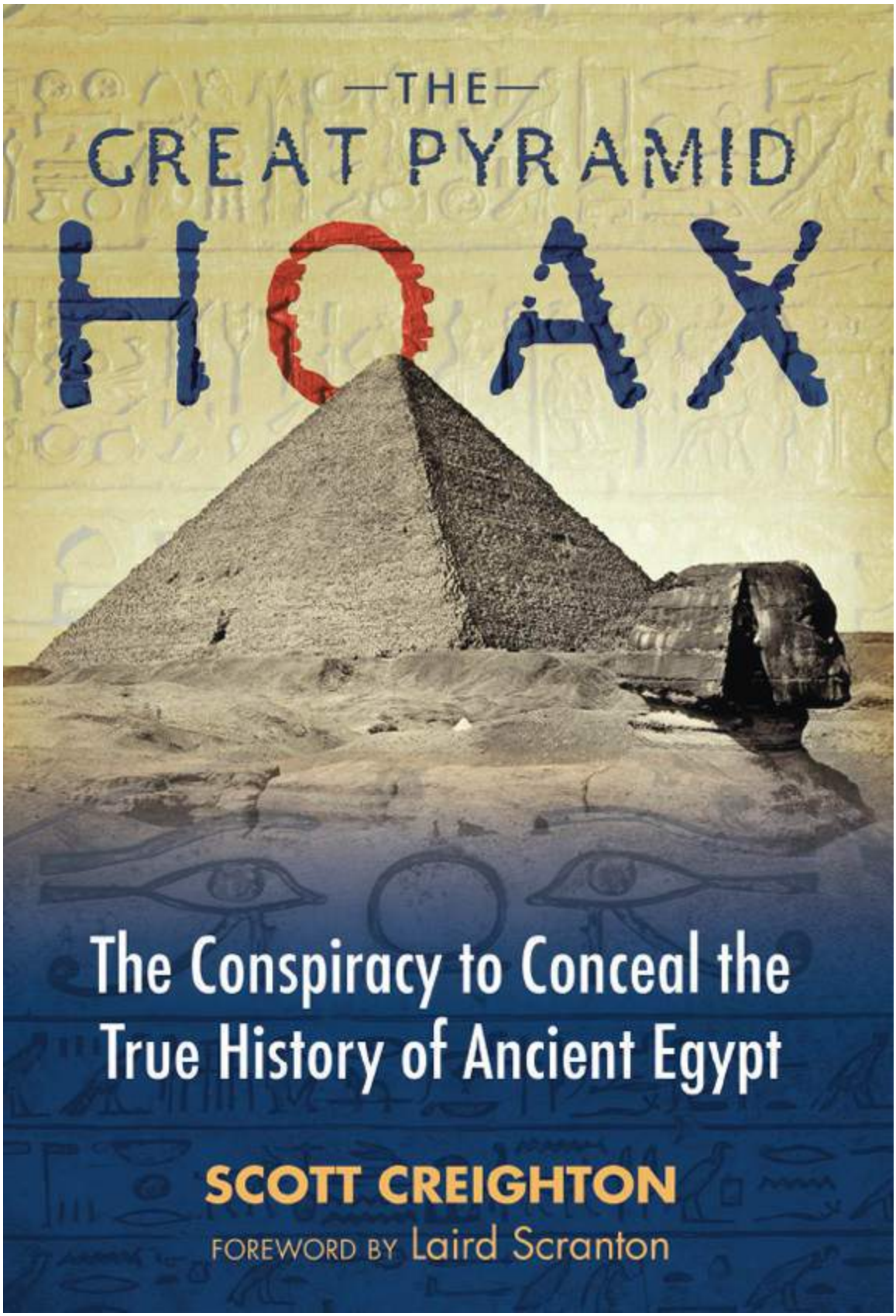
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GREAT PYRAMID
HOAX

The Conspiracy to Conceal the True History of Ancient Egypt

SCOTT CREIGHTON

Bear & Company
Rochester, Vermont • Toronto, Canada

For my wife, Louise, and my children ,
Jamie and Nina . . . forever .

— THE —
GREAT PYRAMID HOAX

"Egyptologists consider the ochre-painted Khufu cartouche in the Great Pyramid as the ultimate proof that this pyramid belongs to the Fourth Dynasty pharaoh Khufu. But much controversy surrounds its authenticity. If the Khufu cartouche is indeed a hoax, then the implications are tremendous. Scott Creighton has undertaken a very bold and meticulous investigation into this mystery. *The Great Pyramid Hoax* is a must-read book for all seekers of truth."

ROBERT BAUVAL, AUTHOR OF *THE SOUL OF ANCIENT EGYPT*

"An intriguing narrative, *The Great Pyramid Hoax* expertly weaves its way through the sands of time, as it revisits one of Egyptology's most contentious issues—the dating of the Great Pyramid. In the best traditions of alternative research Creighton takes the reader on a personal journey of exploration, skillfully weaving powerful themes upon clear emotional expression, as he attempts to uncover the veracity behind one of Egypt's most endearing mysteries. A must-read for those searching for the truth."

LORRAINE EVANS, EGYPTOLOGIST, DEATH HISTORIAN, AND AUTHOR OF *KINGDOM OF THE ARK*

ACKNOWLEDGMENTS

This book would not have been possible without the input, assistance, and encouragement of many individuals. I would first like to express my profound and sincere gratitude to the team at Inner Traditions r Bear & Company, whose professionalism and guidance took much of the pain out of producing this work.

The late Zecharia Sitchin, a world-renowned scholar and international bestselling author, paved the way for this book, and without his early insights into this controversy, this work most likely would never have seen the light of day. This can be said equally of the late Alan F. Alford, whose dedicated research into this subject inspired much of my own investigations. In 1998, Alford wrote:

> My challenge to Egyptologists is this. Find the Howard Vyse diaries and show them to me. If I cannot find at least three incriminating statements in those diaries, I will drop my argument that the workmen's graffiti was forged.

It is with a considerable sense of regret that Alford, who departed this Earth much too soon, could not witness just how prophetic his words were to become as the evidence from three pages of Vyse's private diary, presented later in this book, will demonstrate.

Patricia Usick of the British Museum and Roger Bettridge of the Centre for Buckinghamshire Studies helped immensely by providing access to the Hill facsimiles and the Vyse family archive, respectively. I would particularly like to thank Mr. Bettridge for his great generosity in assisting me with the transcription of some difficult passages from Colonel Vyse's private journal. A special mention and thanks must also be extended to the staff in the Archive Department of the Mitchell Library in Glasgow, who also helped transcribe some difficult passages.

My good friend Sean Damer deserves credit here too for his unstinting support and encouragement over many years. And none of this would have been at all possible without the great help and assistance of George and Jim, who would tirelessly read and offer feedback to each draft of this manuscript.

My children, Jamie and Nina, were both very young when all of this began. They would always listen (sometimes reluctantly it has to be said), but they were always curious and would often ask questions. I thank them both for some quite marvelous questions; questions that only a child can ask.

Above all, my dearest wife, Louise, deserves all the plaudits for she has truly had to put up with the most—and it wasn't always plain sailing. When things got tough she was always there to help. And when they got really tough she was always the first with her shoulder to the wheel. Not even a severe head injury, which so nearly took her life, would hold her back. There are no words that can ever encapsulate my sincere gratitude in having this truly remarkable woman in my life.

I thank you all.

SCOTT CREIGHTON ,
MIDSUMMER'S DAY , 2016

Louise Creighton (Photo: Scott Creighton)

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FOREWORD

Work in the field of archaeology is somewhat like prospecting for gold. Both are disciplines of discovery that require the utmost care, patience, and perseverance but only occasionally reward the practitioner with a substantive return. When archaeological studies do produce such a return, a correct understanding of the significance of a finding may require specialized knowledge or rest on subtleties of understanding that the typical layperson may not possess. This means that the average person may not always be competent to evaluate the claims of competing researchers. Meanwhile, truly productive finds are the stuff from which archaeological careers are molded, academic reputations fostered, and theoretical ground staked. Knowing this, it seems clear that professional researchers must be subject to ongoing motivation to produce such claims.

Likewise, Egyptology is a field in which a small number of professionals have historically exercised a high degree of control over such things as access to sites, distribution of financial resources, and publication of results. Great egos tend to flock to positions with this degree or quality of control. In such an environment, it seems inevitable that practitioners might sometimes be tempted to take personal advantage of their specialized knowledge or position and leverage it to influence a career-making claim.

Structures on the Giza plateau in Egypt represent the most obvious reference points by which a modern observer may infer the outlook and intentions of our ancient ancestors. Foremost among these (second only to the incomparable Sphinx) is the Great Pyramid, or Pyramid of Khufu. Its sheer size, central position on the Giza plateau, and structural precision serve as an open invitation to students of ancient mysteries to make it a focus of their attention. The call of the Great Pyramid is made even more enticing by the many uncertainties that attend this great edifice, coupled with the relative sparseness of evidence on which these uncertainties often rest. For example, theories abound in relation to how the pyramid may have been built, what practical functions it might have served in ancient times,

what undiscovered hidden chambers it might potentially house, whether slaves or paid workers were enlisted to construct it, what special qualities of electricity or resonance its stone blocks might possess, and so on.

First among the mysteries of the Great Pyramid is the persistent question of who actually built it. To those of us who see likelihood in the existence of civilizations prior to ancient Egypt, there is a temptation to credit the Great Pyramid to some advanced culture now lost to the mists of time. However, from an academic perspective, the era of origin for the Great Pyramid is considered to be a closed question: the consensus is that it was commissioned by the second pharaoh of the Fourth Dynasty of Egypt, a king named Khufu who ruled circa 2550 BCE. However, some modern-day researchers express doubt about a view-point that casts as a royal tomb a structure that, to all outward evidences, never actually housed a pharaoh's body. We might be inclined to simply set this inconvenient circumstance aside if we were confident that the official viewpoint was upheld by other unshakable evidence. But as we shall see as this book progresses, such does not always seem to be the case.

Despite the often careful fieldwork that has historically been carried out by archaeologists, we could argue that there is a kind of myopia at work in the field of Egyptology that can limit official perspectives on the likely purposes of ancient structures. The prevailing mind-set is one from which we might imagine future archaeologists who explore cultures of the twenty-first century excavating "local temple complexes" and "palaces," where today one sees only strip malls and Home Depots. In the real world, expectation can influence outcome. It has been famously said that if we choose to consult a surgeon with a problem, we can reasonably expect to hear a surgical solution proposed. The same is true in fields like Egyptology, where despite the arguably ethical intentions of researchers, findings can be influenced by strong personalities, personal motives, and academic specialties.

In the field of Egyptology, the consensus of the profession ultimately colors everything, while facts presumably provide the building blocks of the foundation for any reasonable interpretation. In cases where evidence is slim, the trick can often be to find ways to "anchor" an interpretation by linking it to some immutable fact. In *The Great Pyramid Hoax,* Scott Creighton investigates various avenues for doing precisely that. He explores

this anchoring principle as it applies to the evidence that supports the traditional dating of the Great Pyramid and to various theories that have been put forth over the years to question it. He takes consistent care to trace the evidence back to its earliest known sources and to consider many sides of a pertinent question. He is concerned about verifying the historical reasonableness of evidence; for example, does an inscription conform to the stylistic conventions of its attributed era, and was a specific formulation of paint available at the time when it is claimed to have been applied?

It is no wonder, in a field where competing viewpoints already struggle to take root within a broad set of informed academic researchers, that what may be perceived by those researchers as the less-well-informed viewpoints of outsiders are often not welcomed with open arms. Nonetheless, one proper role of the alternative researcher is to consider questions that may not be seen as politically correct within the more staid corridors of the traditional archaeologist. For myself, I was taught that it was the job of a scientist to dispassionately consider each of the potential answers to an important unresolved question, even those that might be considered unlikely or unpopular. Likewise, when it comes to issues that might theoretically fall through the cracks of peer review in a discipline as traditionally fraternal as Egyptology, there may still be value in subjecting important issues to the careful review of an outsider—one whose distance from the profession or differences in perspective may catalyze fresh new questions on a hotly debated subject. Scott Creighton gives us this fresh perspective and so much more in *The Great Pyramid Hoax.*

LAIRD SCRANTON

LAIRD SCRANTON is a recognized authority on Dogon mythology and symbolism. He is a frequent guest on radio programs such as *Coast to Coast AM* and *Red Ice Radio* and has been a featured speaker on ancient mysteries at national conferences, including the Paradigm Symposium. He is the author of several books, including *The Science of the Dogon* and *China's Cosmological Prehistory.*

Introduction

A CONTROVERSIAL CLAIM

What is the truth of the crudely painted marks within four hidden chambers of the Great Pyramid of Giza, which were presented to the world by the British explorer and antiquarian Colonel Richard William Howard Vyse after blasting his way with gunpowder into these chambers in 1837?

To historians, archaeologists, and Egyptologists, these marks present hard evidence—the *only* hard evidence—that the Great Pyramid belonged to the ancient Egyptian king Khufu, who ruled Egypt circa 2550 BCE, and that it was probably built as his eternal tomb. According to the traditional view, the discovery of these painted marks gave to the world confirmation of the writings of the Greek historian Herodotus, who, some two thousand years *after* the Great Pyramid is believed to have been built, wrote that the structure had been erected as the eternal tomb of Cheops (the Greek word for Khufu), although the later historian Josephus (following Manetho) recorded the builder of the structure as Suphis, or Sensuphis, a name that linguists were eventually able to transliterate into its ancient Egyptian form of Khnum-Khuf and its abbreviated form, Khufu.

These roughly painted marks, which included three different names of the king (an ancient Egyptian king could have as many as *five* different names), are—without doubt—the strongest evidence that Egyptology has to link the Great Pyramid directly to Suphis/Khufu and thus to firmly lock the pyramid's construction to the date of circa 2550 BCE.

To an ever-increasing number of alternative thinkers, the site at Giza, including the Sphinx and the Giza pyramids, is much, much older, and these painted marks allegedly discovered in situ are regarded as nothing more than the result of a quite audacious hoax perpetrated by Vyse and his team in order to confirm Suphis/Khufu as the builder of the Great Pyramid and

thereby to provide corroboration to the ancient historical accounts of Herodotus, Manetho, and others that the Great Pyramid was built as the eternal tomb of this ancient Egyptian king.

In 1980, Russian-born, international bestselling author Zecharia Sitchin challenged the Egyptological establishment by publishing in his book *The Stairway to Heaven* a controversial claim that the painted marks, including the various king's names, deemed to have been discovered in the Great Pyramid by Vyse were, in fact, forged by him. While Sitchin raised some pertinent questions concerning Vyse's claimed discovery—some of which remain legitimate questions even to this day—the main evidence he presented in support of his forgery theory was eventually discredited. As a result, Sitchin's controversial allegation was soon dismissed, and many of those who had hitherto supported him quickly distanced themselves from the controversy.

Now, almost forty years after Sitchin first made his forgery allegation, *The Great Pyramid Hoax* revisits this highly controversial question and presents a dossier of new and never-before-seen evidence that strongly suggests that Sitchin's forgery claim (while largely unsupported by the evidence Sitchin himself presented) may, in fact, have been right all along, and that, far from being the near impossible task that mainstream Egyptology claims it would have been, such a forgery could have been carried out by Vyse with just the most elementary knowledge of the ancient Egyptian language—and a little bit of luck.

The evidence presented in this book comes from a variety of sources, old and new: from Vyse's little-known private field notes as well as his published work, from the survey and facsimile drawings made at the time by his assistants, and from modern high-definition photographs, eyewitness accounts, modern chemical analysis, and other credible sources.

With all of these sources at our disposal we find ourselves, like the best historical detectives, prying open this "cold case" as we comb the byways and alleyways of recent and ancient history, compiling a compelling dossier of highly incriminating facts that strongly suggests that the painted "quarry marks" in these chambers—in particular the various royal names of the king—were almost certainly faked by Vyse and his team.

To many of us today, the implication of such a hoax having been perpetrated within the Great Pyramid is—quite literally—monumental, for, at a stroke, the Great Pyramid is removed almost entirely from the historical context into which conventional Egyptology has effectively shoehorned the structure. But if the evidence of the crudely painted marks found within the pyramid truly was faked, then, at a stroke, Egyptology loses the key piece of evidence that allows it to attribute the structure to Khufu and to a construction date of circa 2550 BCE. With this vital evidence removed, then the Giza pyramids become monuments whose provenance is much less certain and, as such, reopens the question as to who really was the builder of these monuments, when were they built, and for what purpose.

This is *The Great Pyramid Hoax.*

1

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MAKING HISTORY

The Great Pyramid of Giza in Egypt is said by historians to have been the tomb of Khufu (the Greek Suphis, or Cheops), an ancient Egyptian king who ruled the land of the Nile some 4,500 years ago and who is believed to have been the second king of the Fourth Dynasty of the ancient Egyptian civilization.

Alas, however, neither the remains of Khufu nor any of his funerary equipment were ever found within the Great Pyramid, the structure supposedly having been pillaged and picked clean in antiquity by tomb robbers, according to the traditional narrative. Indeed, the only direct physical evidence Egyptology has to connect the Great Pyramid of Giza to this Fourth Dynasty king are some rough, red-painted marks that are claimed to have been discovered by British explorer and antiquarian Colonel Richard William Howard Vyse (fig. 1.1), who claims he found the marks inscribed on the stone walls and roof of a series of hidden "stress relieving chambers" that had been sealed since the pyramid's construction (fig. 1.2).

Fig. 1.1. Colonel Richard William Howard Vyse

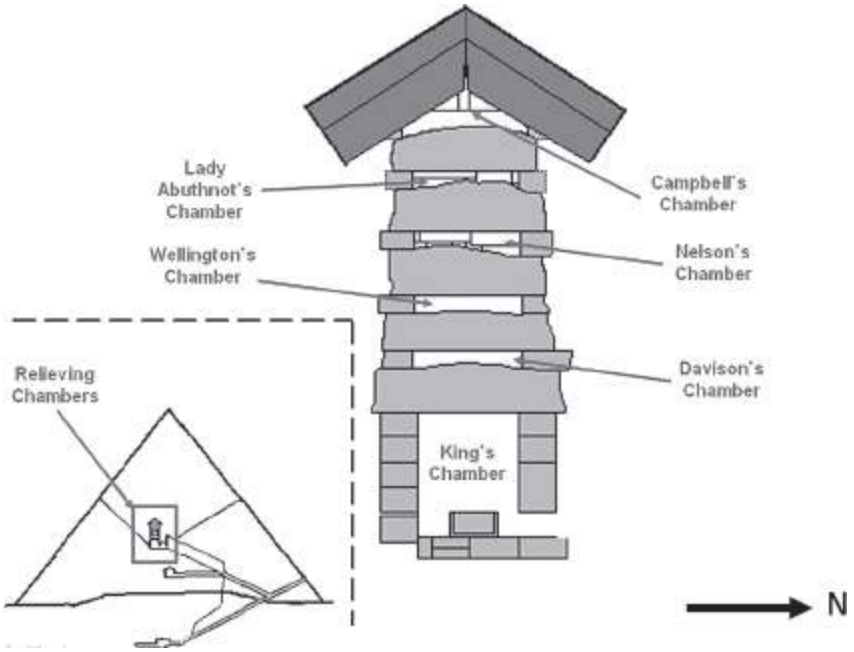

Fig. 1.2. The five "stress relieving chambers" of the Great Pyramid. The upper four chambers were blasted open by Vyse in 1837. (Image: Scott Creighton)

Among the profusion of marks found on the stone blocks of these small chambers were some highly significant inscriptions that, according to Egyptologists, present the various names of the king they believe built the Great Pyramid.

It has come down to us via the fragmented accounts of the ancient historians Herodotus, Manetho, and some others that the builder of the Great Pyramid was known in ancient times as Cheops (according to Herodotus) and Suphis (according to Manetho). Historians accept that these two Greek names refer to the same historical person—the man they believe constructed the Great Pyramid. After Jean-François Champollion—building on the earlier efforts of Sir Thomas Young—finally succeeded in cracking the ancient Egyptian hieroglyphic system in 1822, the name Cheops/Suphis was, ten years later in 1832, transliterated by the pioneering Italian Egyptologist Ippolito Rosellini into the hieroglyphic form of the name Khnum-Khuf and its abbreviated form, Khufu (figs. 1.3 and 1.4).

Fig. 1.3. Egyptian hieroglyphs spelling Khnum-Khuf—the full birth name of Khufu. Note how this name is contained within an oval frame known as a cartouche.

Fig. 1.4. Egyptian hieroglyphs spelling Khufu. The vertical bar (at the left of the cartouche) always indicates the end of the name.

As stated, both Khnum-Khuf and its abbreviated form, Khufu, are said to have been found in a number of hidden chambers of the Great Pyramid. However, these marks were not neatly sculpted hieroglyphic signs like those in figures 1.3 and 1.4 but instead were simple, crudely painted hieroglyphic signs written in a cursive style known by scholars today as *old hieratic,* a shorthand script used for everyday communication (figs. 1.5 and 1.6). The red ochre paint used to make these marks was made from iron oxide ochre mixed into water, sometimes with fish oil, gum, egg, or honey added to act as a binding agent. This simple paint, known as *moghra,* was still being made and was still available in Egypt in 1837.

Fig. 1.5. Reproduction of Egyptian cursive script (old hieratic) spelling Khnum-Khuf (Image: Scott Creighton, based on original drawing by J. S. Perring)

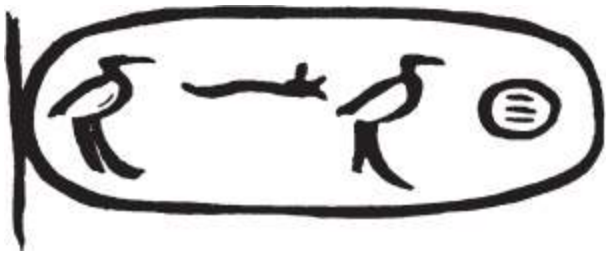

Fig. 1.6. Reproduction of Egyptian cursive script (old hieratic) spelling Khufu (Image: Scott Creighton, based on original drawing by J. R. Hill)

The signs used in old hieratic script were cursively painted equivalents of the sculpted hieroglyphs, and, as such, their early orthography was not so far removed from their counterpart sculpted signs. As the centuries passed, however, the ink or painted cursive signs became ever more simplified (for ease of writing), resulting in the hieratic signs becoming ever more cursive, evolving further and further away from the sculpted hieroglyphic form from which many (though not all) of the hieratic signs originated. In later dynasties the written hieratic signs had evolved to the point of bearing no likeness whatsoever to their root sculpted hieroglyphic equivalents. This was called *demotic script.* By contrast, many of the sculpted, or "monumental," hieroglyphic signs changed very little over the entire duration of the ancient Egyptian civilization.

In short, old hieratic signs, whether written neatly with ink and reed on a sheet of papyrus or crudely written with paint and brush on a block of stone, were obviously much quicker forms of writing than the labor-intensive sculpted stone hieroglyphics, and, as a consequence, the signs naturally became much more cursive and simplified in appearance than the traditional monumental form (figs. 1.5 and 1.6).

As the study of ancient Egyptian hieroglyphics progressed and the names of the various kings became ever more understood, it was realized that not only did these hidden chambers discovered by Vyse contain the full and abbreviated birth name of the king but that a *third* name of the Great Pyramid builder had also been inscribed onto the walls of these hidden chambers. This other name became known as the king's Horus name (fig. 1.7), and, significantly, this name was *not* contained within the distinctive oval cartouche, which, in Vyse's time, was understood as the only means by which the king's name could be recognized.

As stated in the introduction to this book, it is now understood that an ancient Egyptian king could have as many as five different names, although, it has to be said, this was *not* fully understood in Vyse's time. And so, with all of these different royal names of the Great Pyramid builder painted onto a number of stone blocks of the various relief chambers, Egyptologists now had more than the mere word of Herodotus and Manetho to support their view that Suphis/Khnum-Khuf (a.k.a. Khufu/Medjedu) built the Great Pyramid.

But there is much more to Vyse's claimed discovery. These inscriptions within the Great Pyramid were not simple isolated inscriptions of the king's various names, but were, in fact, contained within phrases consisting of a series of other signs alongside (or below) the king's name. It is now believed that these other signs (along with the king's name) formed the identities of the various work gangs (figs. 1.8–1.10) involved in constructing the pyramid, and it is believed that these names were painted onto individual stone blocks by the various quarry gangs as they extracted the blocks at the stone quarries, which is why these writings are called quarry marks or workers' graffiti. Within the hidden chambers three different quarry gang names were found, although the precise translations of these names remain somewhat uncertain.

Fig. 1.7. Reproduction of Egyptian cursive script spelling Hor Medjedu (Khufu's Horus name). Note that the Horus name is not contained within the distinctive oval cartouche. (Image: Scott Creighton, based on original drawing by J. R. Hill)

Fig. 1.8. Reproduction of a gang name from the Great Pyramid that reads, "The gang, the White Crown of Khnum-Khuf is powerful." Note: actual orientation of script maintained. (Image: Scott Creighton, based on original drawing by J. R. Hill)

Fig. 1.9. Reproduction of a gang name from the Great Pyramid that reads, "The gang, Companions of Khufu." Note: actual orientation of script maintained. (Image: Scott Creighton, based on original drawing by J. R. Hill)

Fig. 1.10. Reproduction of a gang name from the Great Pyramid that reads, "The gang, Pure Ones of the Hor Medjedu." (Image: Scott Creighton, based on original drawing by J. S. Perring)

And so, with this highly compelling material, Egyptology felt supremely confident that it now had sufficient authentic documentary evidence to declare Suphis/Khufu as the builder of the Great Pyramid.

AN IMPOSSIBLE FORGERY

But there were other reasons why Egyptologists could feel confident that the painted marks in these chambers were authentic Old Kingdom marks

and not, as a number of researchers have suggested—most notably Zecharia Sitchin (fig. 1.11)—fake marks painted onto the chamber walls by Vyse and his team.

These reasons can be summarized as follows:

1. Both the full birth name of the king (Khnum-Khuf) and its abbreviated form (Khufu) as well as the Horus name appear in these hidden chambers of the Great Pyramid. There are six, mostly complete, occurrences of Khnum-Khuf (fig. 1.5), one complete occurrence of Khufu (fig. 1.6), and four occurrences of Hor Medjedu (fig. 1.7) to be observed within the various chambers. However, in 1837 no one anywhere in the world knew that an ancient Egyptian king could shorten his birth name or, as noted, that the king could have as many as five different royal names. So, the reasoning goes, if these marks had been faked, why would any forger have placed what would have appeared to the forger to be *two* different (though similar) royal cartouches within these chambers if, as it was understood in 1837, the pyramid was built as the eternal tomb of just *one* king? Why not place *only* the Khnum-Khuf cartouche name or *only* the Khufu cartouche name within these chambers? In short, why would any hoaxer at this time have placed *two* cartouches into the chambers when it would surely have been known to the hoaxer that the Great Pyramid was built by one king, known as Suphis?
2. No one in 1837 knew that the king had another royal name known as the Horus name, which was *not* written within the distinctive royal cartouche. As noted, it was believed in Vyse's time that the names of ancient Egyptian kings were always written inside an oval cartouche. How then, the Egyptologists argue, would it have been possible for any forger to recognize a piece of ancient Egyptian script as another name for the king (i.e., the Horus name) and place it also within these chambers when this name wasn't even inside a cartouche, the distinguishing oval sign that would have easily identified the text therein as a king's name? For someone to possess such knowledge, the Egyptologists insist, would have made that individual the foremost scholar and authority of ancient Egyptian writing in the world. In 1837 such knowledge would have been beyond even the best academic

minds of the time and would, they insist, have been far beyond the reach of the average forger—so it is believed.

3. Some of the quarry marks can only be observed through small cracks between tightly fitting adjacent blocks. How would it have been possible, the Egyptologists ask, for any forger to get a brush into the tight gaps between these immovable, seventy-ton blocks and paint any meaningful marks onto the faces of those closely fitting blocks? These marks, they insist, had to have been painted onto the blocks *before* they were set into place (i.e., when the block faces were accessible at the quarries), so they conclude that *all* the painted marks, including those in plain sight, *must* be genuine.
4. It is argued also by Egyptologists that each of the work gangs that built the pyramid (and its internal chambers) had quite different names and that each individual gang name was only ever linked to a specific version of the king's five names; these gang names were quite specific and were never mixed and matched. How could any forger possibly have known of this "pairing" of a specific gang name to a specific version of the king's name?
5. Related to point 4 above is the theory proposed by Egyptologists that each work gang was responsible for the construction of a particular side of the pyramid (and, presumably, the same side of the internal chambers). To this end it is argued that the work gangs responsible for particular sides of the pyramid (and its internal chambers) would place their names *only* on the blocks for the side of the pyramid or the pyramid chamber that they were responsible for constructing. How could any forger have possibly known of such a practice and (according to Egyptologist Ann Macy Roth, Ph.D.) have then replicated such a practice onto the stones within the various stress-relieving chambers of the Great Pyramid? [*1]
6. During a visit to these hidden chambers of the Great Pyramid, geologist and geophysicist Robert M. Schoch, Ph.D., visually examined many of the painted marks therein, and what he found convinced him of their authenticity, writing, "Were these just fakes? Studying them closely, however, they looked authentically ancient to me. I could see later mineral crystals precipitated over them . . ." [1]

Fig. 1.11. Zecharia Sitchin (1920–2010) first suggested the painted marks within the hidden chambers of the Great Pyramid were faked by Vyse.

Together, all of the above points represent a summary of the key facts that mainstream Egyptologists present in support of their view that the painted marks in the Great Pyramid are genuine Old Kingdom quarry marks and are not and could never have been the product of a nineteenth-century hoax, as first proposed by Zecharia Sitchin in his controversial book *The Stairway to Heaven*. As such, Egyptology insists that there is little need for any modern scientific analysis, or further research of any kind, into the question of the authenticity and provenance of these marks. In their view a forgery would have been impossible; thus, the quarry marks are genuine, and that is the end of the matter.

SITCHIN'S FORGERY CLAIM

In his book Sitchin argued that Vyse and his assistant, J. R. Hill (with the tacit complicity of another assistant, John Shea Perring), painted the Khnum-Khuf and Khufu cartouches into the various chambers of the Great Pyramid. He writes:

> His depiction thus served to enhance Vyse's and Hill's notion that the crucial cartouche of Kh-u-f-u should be inscribed in the

> uppermost chamber with the symbol for the solar disk. . . . But in doing so, the inscriber had employed the hieroglyphic symbol and phonetic sound for RA, the supreme god of Egypt! He had unwittingly spelled out not Khnem-Khuf, but Khnem-Rauf; not Khufu but Raufu. He had used the name of the great god incorrectly and in vain; it was blasphemy in ancient Egypt. . . .
>
> And, therefore, the substitution of Ra for Kh was an error that could not have been committed in the time of Khufu, nor of any ancient Pharaoh. Only a stranger to hieroglyphics, a stranger to Khufu, and a stranger to the overpowering worship of Ra, could have committed such a grave error. [2]

In his later book *Journeys to the Mythical Past,* Sitchin expanded on his forgery theory, writing:

> As I was poring over Vyse's printed diary [Vyse's published work], something odd struck me: The Royal name he showed was inscribed differently than on the Inventory Stela; instead of diagonal lines (a "sieve") inside a circle which reads KH (and thus KH-U-F-U), Vyse's finds were written with a circle with just a dot inside . . . that reads not KH but RA, the sacred name of Egypt's supreme god. Thus the name Vyse reported was not Khufu but RA-u-f-u.
>
> In 1978, visiting the British Museum, I asked to see the Vyse parchments. It took some doing, as no one had asked for them as far as anyone could recall. But the Hill Facsimiles (as they were catalogued) were found and shown to me—a bundle tied with yellowing-white ribbon. The authenticated parchments were there, the way they reached the museum more than a century earlier; and the misspelling was also there: In no instance was the "Kh" inscribed correctly as a sieve with diagonal lines; instead there was a dot or a smudge inside a circle, spelling "Ra." [3]

It is difficult to know where to begin with Sitchin's comments on this issue. The first thing to say is that Sitchin was relying on the survey

drawings made by Perring that were included in Vyse's published work. However, these plan drawings of the chambers present the chamber markings and the various cartouches therein in much too small a scale to be able to easily or clearly discern the fine detail within the cartouche discs.

Second, despite an attempt to do so, Sitchin never managed to obtain a permit that would have allowed him access to the relieving chambers of the Great Pyramid to witness the cartouches therein firsthand. Had he managed to do this then he would have realized the complete folly of his own words. Photographs and epigraphic drawings of the Khufu cartouche from Campbell's Chamber (a cartouche on which Sitchin focused his argument) clearly show that this cartouche does indeed contain very obvious horizontal striations and *not* a center smudge or dot, as Sitchin claimed in his books.

Even more bizarre is Sitchin's claim that the facsimile drawings of Hill (now in the British Museum) do not contain the "correct" striations. Having seen all twenty-eight of Hill's facsimiles and compared them with Perring's survey drawings, I can vouch that they do, in fact, show that all the cartouche discs match. The cartouche disc lines in Hill's facsimile drawings are horizontal, as are those in Perring's drawings. (Unfortunately there are, at present, no publicly available photographs of the Khnum-Khuf cartouches from the relieving chambers of the Great Pyramid that would allow us better comparisons.) Why Sitchin seemed to think the disc striations of the cartouches within these chambers could only be diagonal is unclear as it was known in Sitchin's time that these lines within the cartouche disc can be diagonal, horizontal, or even vertical, and there seems to be no rule that stipulates how many lines should be drawn within the disc; there can be many, and, significantly, there can even be *no* striations present, a point we will come back to later in this book.

But most pertinent here is that the facsimile drawing of the Khufu cartouche made by Hill from Campbell's Chamber most certainly agrees with photographic evidence of the actual cartouche in this chamber that we observe today—a disc with three clear horizontal striations and not a dot or a smudge. It has to be said though that there is a single occurrence of a cartouche drawing made by Hill from one of the lower chambers whereby the lines within the cartouche disc are so close together that they do appear as a single smudge that could be taken as a center dot. If this single instance

of a cartouche disc that *looks* like it has a center dot is what Sitchin based his Ra argument on, then Sitchin is surely guilty of being highly selective with his evidence while, at the same time, ignoring the large body of evidence (facsimile drawings) that contradicted his argument.

It is simply difficult to fathom what Sitchin was trying to say about Hill's drawings, particularly the facsimile of the Khufu cartouche in Campbell's Chamber, for this cartouche (at least the publicly available photographs of it) totally agrees with what I found myself in Hill's drawings of it at the British Museum. (There are, however, some other, newly discovered anomalies with Hill's drawing of this gang name and its associated Khufu cartouche, which will be discussed in chapter 11.)

When the flaws in Sitchin's forgery claim were exposed, it is understandable that other renowned and respected authors such as Graham Hancock and Robert Bauval, who had hitherto backed Sitchin's forgery claim in their own books, quickly distanced themselves from the controversy. Through his failure to properly research these chamber cartouches (at the very least obtain photographic evidence of the actual Khufu cartouche from Campbell's Chamber), Sitchin's flawed research has served only to "poison the well," making it very difficult indeed for other researchers to revisit the forgery question. Most people now consider that, with Sitchin's key argument having been debunked, the matter is now settled and closed.

So, as a result of the flawed aspects of Sitchin's research having rightly been dismissed, Vyse's history-making discovery of these painted marks that bear the various names of the second king of the Fourth Dynasty of ancient Egypt has continued to go unchallenged and, to this day, remains the key piece of tangible evidence that links the Great Pyramid to Suphis/Khufu/Hor Medjedu. With Vyse's unchallenged evidence, the Great Pyramid was duly slotted by Egyptology into the epoch of circa 2550 BCE —making it a structure that now firmly belonged to the Old Kingdom period of ancient Egypt.

On the surface the painted quarry marks in the relieving chambers seem highly compelling evidence, and there would appear to be little reason why anyone should ever begin to doubt or even question their authenticity or provenance, and the case for the Egyptologists is now surely beyond question.

But is it? Is the mainstream case really so watertight, so impregnable? What we must keep in mind here is that these painted marks have never, as far as we are presently aware, been subjected to any official, modern scientific scrutiny; their authenticity was accepted by Egyptology purely on what amounts to little more than the word of Vyse and bolstered by the belief that any forgery would have been virtually impossible, especially by someone such as Vyse, who had a very limited understanding of ancient Egyptian hieroglyphics. Such was the standard of proof of these things in early Victorian Britain.

But was it really so impossible for someone at that time with very limited knowledge of ancient Egyptian language and writing to have confounded all of the perceived obstacles and to somehow have managed to find a way to convincingly and successfully forge these painted marks? Was there any possibility at all that any layperson in Vyse's time could have placed these marks into these chambers, even in impossible places between tight-fitting blocks, in a manner that is consistent with our modern understanding of them, to have fooled the experts of the time and thus to have effectively perpetrated the hoax of all history?

Sitchin's flawed research notwithstanding, in consideration of this question, it is the opinion of this author that the answer has to be an emphatic "yes"; it was entirely possible for someone in 1837, with just the most elementary knowledge of ancient Egyptian hieroglyphics and just a sprinkling of luck, to have pulled off such an audacious hoax and to have done so in a manner that was convincing and not at odds with the contemporary understanding of the marks. Consider the following:

1. Contrary to the view of Egyptology, to perpetrate such a hoax did not at all require any in-depth understanding of ancient Egyptian hieroglyphics or hieratic script in order to "know" what were "appropriate" marks to place inside these hidden chambers.
2. Any hoaxer would need only to have the ability to recognize the cartouche of Suphis/Khufu to perpetrate this hoax, and it will be shown that Vyse most certainly *was* able to recognize the Suphis/Khufu cartouche during his time in Egypt.
3. Acting on the state of scholarly knowledge of the time, any hoaxer would actually have been compelled to find and place not one but *two*

(similar looking) cartouches into the various chambers.

4. Contrary to the view of Egyptology, painting marks into tight gaps between immovable blocks is actually quite feasible and not the impossible task Egyptology would have us believe; it required only a little lateral thinking on the part of the hoaxer.
5. While it is unlikely that the practice of different ancient Egyptian crews working on different sides of the pyramid and on the sides of the internal chambers (as theorized by Ann Macy Roth) would have been known to any hoaxer, a close analysis of the distribution of the various marks in these chambers seems to suggest that, contrary to the view of Roth, whoever placed the marks in these chambers did *not,* in fact, adhere to or understand such a practice.
6. The visual observation of the painted marks by Schoch in which he described them as looking "authentically ancient" as a result of "later mineral crystals [having] precipitated over them" is inconclusive without actual chemical analysis of the marks (which will be presented later in this book). Further on in this passage, Schoch goes on to say of this mineral crystallization that it is ". . . a process that takes centuries or millennia" If the crystallization observed on these marks can, in Schoch's words, take just "centuries" to form, then they could just as easily have formed in the near two centuries since Vyse first opened these chambers (and thereby forever changing the atmospheric conditions within them). Indeed, photographs of some modern graffiti to the left of the Khufu cartouche shows this graffiti entirely clear of any crystallization but is almost entirely covered with crystals in more recent images—crystallization that has taken, at most, just a few decades to form.

In the course of this book we will consider in detail how all of these seemingly insurmountable obstacles could have been overcome by Vyse and his team (and relatively easily so), as well as present the considerable corpus of evidence that strongly suggests that the painted marks within these chambers are not the provenance of the Fourth Dynasty of ancient Egypt but are nothing more than the product of a nineteenth-century hoax. In short, the forthcoming chapters of this book will demonstrate how such a hoax *could* have been easily perpetrated and will present numerous

evidence-based facts that show that, in all likelihood, such a hoax *was* perpetrated.

However, before we delve in to the details of this, it might stand us in good stead to present a quick-and-basic outline as to how such a hoax could have been perpetrated within the Great Pyramid.

CHAPTER ONE SUMMARY

- Vyse discovered and opened four chambers above the King's Chamber within the Great Pyramid. These chambers presented the first and only written text ever found in any of the giant pyramids. The text consisted of rough quarry marks painted onto the stone blocks of the chambers with red ochre paint, a paint that was still being made and available in Egypt in 1837.
- Among the marks found were the various names of Suphis, the ancient Egyptian king whom Egyptologists believe built the Great Pyramid. The king's names formed part of the names of the work gangs who built the pyramid.
- One of the names found was not even known, at this time, to be a king's name, as it was not contained within the distinctive royal cartouche that would normally characterize and identify the royal name.
- These painted marks provided Egyptologists with physical evidence connecting the pyramid to Suphis/Khufu and thus to the Fourth Dynasty of ancient Egypt circa 2550 BCE.
- Zecharia Sitchin, in his 1980 book, *The Stairway to Heaven,* claimed that these quarry marks were painted into the pyramid's upper chambers by Vyse and his closest assistants, who discovered and blasted their way into the chambers.
- Some of the evidence presented by Sitchin in support of his forgery claim was later found to be flawed, and, as such, his claim was

dismissed, even though some of the other evidence he presented in support of his claim has never been properly addressed.

- It will be shown that it is perfectly feasible to place marks in small gaps between closely fitting blocks.
- Contrary to the mainstream belief that the state of hieroglyphic knowledge in 1837 would not have permitted Vyse or anyone else to have perpetrated such a hoax, it will be shown that such a hoax could easily have been perpetrated with just the most elementary knowledge of ancient Egyptian hieroglyphics.
- Schoch believes that quarry marks on the blocks are authentic ancient marks based on crystallization on the surface of some marks. He states also that this crystallization process can take millennia or just centuries to occur.

2

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SEEKING SUPHIS

Prior to his claimed discovery of the Suphis/Khufu cartouche in the Great Pyramid, it is now known that Vyse clearly knew how this particular cartouche should be written. Evidence from his private journal, which will be presented in chapter 13, clearly demonstrates his foreknowledge of this cartouche during his time in Egypt. Curiously, this pivotal understanding is never revealed by Vyse in his *published* work, and it remains unclear exactly *how* Vyse managed to acquire this crucial knowledge as the study of Egyptian hieroglyphics was very much in its infancy, with very little having been published at this time.

It was well understood in Vyse's time (from the ancient historian Manetho) that the builder of the Great Pyramid was known as Suphis. However, in 1837, apart from a few academics, very few people in the world would have known which of the hundreds of ancient Egyptian kings' cartouches represented or could be transliterated into the Greek *Suphis* . This is to say that if anyone were to perpetrate a hoax inside the Great Pyramid, they would have had to ensure that whatever king's cartouche they selected to place inside the chambers, it would have to be a cartouche that transliterated into the Greek *Suphis*. A forger simply could not select a cartouche at random, place it into the pyramid, and hope it would be accepted by scholars as the correct cartouche.

Identifying the correct cartouche of Suphis was not an easy task by any means. The key knowledge in Vyse's time with regard to the translations of the cartouches of the ancient Egyptian kings lay in the hands of just a few scholars, such as the British academic Sir John Gardner Wilkinson, the Italian Egyptologist Ippolito Rosellini, Samuel Birch of the

British Museum, and also some keen amateurs such as Major Orlando Felix.

In *The Stairway to Heaven,* Sitchin writes the following about Wilkinson's 1828 book, *Materia Hieroglyphica.*

> The one and only book repeatedly mentioned in Vyse's chronicles is (Sir) John Gardner Wilkinson's *Materia Hieroglyphica.* As its title page declared, it aimed to update the reader on "the Egyptian Pantheon and the Succession of the Pharaohs from the earliest times to the conquest of Alexander." Published in 1828—nine years before Vyse's assault on the pyramids—it was a standard book for English Egyptologists.
>
> Birch had stated in his report, "a cartouche, similar to that which first occurs in Wellington's Chamber, had been published by Mr. Wilkinson *Mater. Hieroglyph.* " We thus have a clear indication of the probable source of the cartouche inscribed by Hill in the very first chamber (Wellington's) found by Vyse. [1]

Wilkinson's *Materia Hieroglyphica* was indeed one of the earliest published works (in English) relating to the study and understanding of ancient Egyptian hieroglyphics. However, a perusal of Wilkinson's book shows that, contrary to Sitchin's comments (based on the comments of Birch), there is no cartouche of Khnum-Khuf or of Khufu in this early work of Wilkinson. Birch's comment suggesting the Khnum-Khuf cartouche was identified and published in *Materia Hieroglyphica* is erroneous, [2] and it may be that Birch intended to cite Wilkinson's later work, *Manners and Customs of the Ancient Egyptians* (1837), which does indeed present the Khnum-Khuf cartouche and its abbreviated Khufu form, as well as identifying these cartouches as spelling the names of Sensuphis and Suphis, respectively. However, it would have been quite unlikely that Vyse could have procured any helpful knowledge from this later work by Wilkinson, because it was not generally available until January 1838, by which time Vyse had already completed his operations at Giza and had returned to England.

Another possible source that might have assisted any potential forger was the list of kings presented by Felix in his *Notes on Hieroglyphics*

(1830). In Felix's list of "Uncertain Kings" from Wadi Maghara (fig. 2.1) we find the cartouche of Khnum-Khuf and also the cartouche for its abbreviated form, Khufu. Significantly though, Felix does not identify either of these cartouches with the name Suphis, so we must also dismiss this work as providing any useful information that might have assisted any potential hoaxer. The best that could be hoped for with Felix's list of "Uncertain Kings" is that it considerably reduced the number of possible candidates for the all-important Suphis cartouche.

Two years later, in 1832, Rosellini published his *I'Monumenti Dell'Egitto e Della Nubia.* In this scholarly tome we find, for the first time, the cartouches of Khnum-Khuf and Khufu published and identified with the names of Suphis (Khufu) and Sensuphis (Khnum-Khuf) (fig. 2.2).

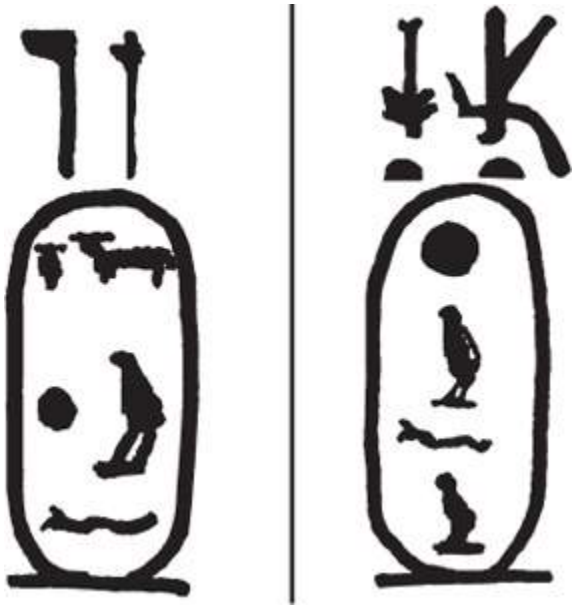

Fig. 2.1. Example of Major Felix's "Uncertain Kings" from Wadi Maghara, showing the cartouches of Khnum-Khuf and Khufu (Image: Major Orlando Felix)

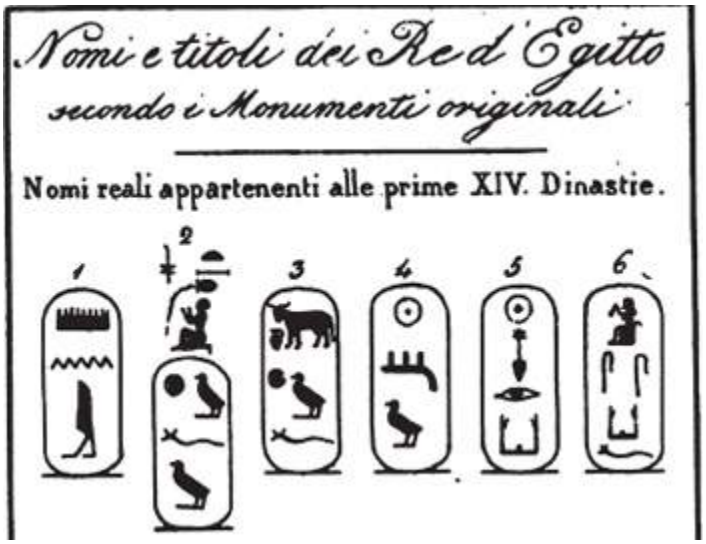

Fig. 2.2. The Suphis/Khufu cartouche (#2) and the Sensuphis/Khnum-Khuf (#3) are identified by Rosellini. (Image: Ippolito Rosellini)

So here in Rosellini's work of 1832, some four years *before* Vyse had embarked upon his operations in Egypt, we find both of the cartouches found in the various relieving chambers of the Great Pyramid identified with the names of Suphis and Sensuphis, and, as such, Rosellini's book would most certainly have assisted any potential forger, providing as it does, the key cartouche identified as "Suphis."

But Vyse would have needed more than just the correct cartouche to convincingly pull off such a hoax. In this regard it is proposed that Vyse, and/or his assistants, discovered a cache of authentic, old hieratic texts (perhaps painted onto stone or written with ink on papyrus) somewhere *outside* the Great Pyramid (as originally proposed by the author and alternative historian Alan Alford); Old Kingdom hieratic inscriptions that would have included various gang names of which the Khnum-Khuf and Khufu cartouches form a part. This "secret cache" would also have contained other inscriptions, including Khufu's Horus name, Hor Medjedu.

However, even though he would not have been able to comprehend anything other than the two cartouches in this theorized secret cache, Vyse would have logically deduced that *all* of the markings presented therein were clearly related in some way to Suphis/Khufu (by virtue of having been found along with the Suphis/Khufu cartouche—the one inscription Vyse *could* recognize). These additional markings, even although incomprehensible to Vyse, would have been copied into the various

chambers. In this scenario Vyse requires only the ability to recognize the cartouche of Suphis/Khufu—this is his "primer," his "cue." Most of the other inscriptions, including the cartouche-less Horus name, placed by Vyse and his team into these chambers merely follow on from this basic, but crucial, piece of knowledge.

Because both the Khufu and Khnum-Khuf cartouches are quite similar, it is further proposed that Vyse assumed the Khnum-Khuf cartouche was simply a variation of the Khufu cartouche but that they both essentially represented the *same* king. Vyse could conceivably have come to such a conclusion had he studied Wilkinson's *Materia Hieroglyphica* in which the eminent British scholar writes:

1. That the phonetic names are always contained in the oval . . . which I shall distinguish by the word "nomen."
2. That the other oval, or prenomen, always contains a *title,* derived from the name of one, or more deities, which serves to point out more particularly the king, to whom both the ovals belong. [3]

In reading the above passage in Wilkinson's book, it is perfectly conceivable that Vyse could have concluded (erroneously) that the two slightly different ovals (cartouches) of Khufu and Khnum-Khuf he had found (in the proposed secret cache) were but the nomen and prenomen names of the same king (rather than one cartouche actually being but an abbreviated form of the other, which is the present belief of Egyptologists). This erroneous assumption of Vyse (in reading Wilkinson) would have effectively ensured that he would have *both* cartouches (from the secret cache) placed within the various chambers of the Great Pyramid. Furthermore, Vyse would not have known that one of the incomprehensible inscriptions from his secret cache that he would also have copied into the chambers was actually *another* of the king's names, the Horus name (Hor Medjedu), a name (not placed in the distinctive cartouche) that would only be identified as a royal name long after his operations in 1837.

To continue the forgery hypothesis, it is further proposed that

1. Some of the markings in these hidden chambers of the Great Pyramid are, in fact, genuine. There is good evidence to support this.
2. The Khnum-Khuf cartouche discovered by Vyse would have contained a disc with internal horizontal striations, whereas the Khufu cartouche would have initially contained a disc with *no* internal striations—just a blank disc.
3. The Khufu cartouche from the proposed secret cache would have been found also with two small dots beneath the snake glyph.
4. The markings (from Vyse's proposed secret cache) would have been painted into the various chambers by two of Vyse's assistants, Raven and Hill, shortly after the chambers were blasted open with gunpowder.
5. Shortly after placing the Khufu cartouche (initially with a blank disc) on the gabled roof of Campbell's Chamber, Vyse would have learned of another spelling for the disc in this cartouche, a spelling that presented this cartouche disc not as blank but with three internal, horizontal striations. These striations would have been added a few weeks later to the (previously copied) blank cartouche disc in Campbell's Chamber and certainly before Hill sent his (updated) facsimile drawing of this cartouche to London.

While the above represents a brief hypothesis of how a forgery could have been perpetrated in the Great Pyramid in 1837, just how likely is it that Vyse would have actually carried out such a fraud? Was he the type of man who could and would have carried out such an audacious hoax, and, if so, what might his motivation have been for so doing? In order to try and answer these questions it may help us to consider the type of man Vyse was and to understand a little of his background.

CHAPTER TWO SUMMARY

- From a study of his private field notes, it is quite clear that Vyse was familiar with the Suphis/Khufu cartouche and how it should be written. It remains unclear how Vyse obtained this crucial knowledge.

- Sir John Gardner Wilkinson's *Materia Hieroglyphica* (1828) did not identify the Suphis cartouche. While Wilkinson's *Manner and Customs of the Ancient Egyptians* (1837) did correctly identify the Suphis cartouche, it was published too late for it to have assisted Vyse, who had, by the time of that book's publication, already completed his operations at Giza and returned to England.
- Wilkinson's *Materia Hieroglyphica,* along with his later work *Topography of Thebes and General View of Egypt* (1835), could have given Vyse the information that an ancient Egyptian king would have had two names, a nomen and prenomen, and that these two names could appear quite similar. Vyse may have mistaken the Khnum-Khuf and Khufu cartouches as a nomen and prenomen of the same king, even though Khufu is actually just an abbreviated form of the nomen Khnum-Khuf. Wilkinson's 1835 book was found in Vyse's private library after his death in 1855.
- Major Orlando Felix's *Notes on Hieroglyphics* (1830) presented the two cartouches found within the Great Pyramid but did not identify them as Suphis/Sensuphis.
- Ippolito Rosellini's *I'Monumenti Dell'Egitto e Della Nubia* (1832) presented the two cartouches found within the Great Pyramid and identified them as Suphis and Sensuphis. This was published five years or so before Vyse commenced his operations at Giza.
- It is proposed that Vyse discovered a secret cache of authentic old hieratic script somewhere outside the pyramid. This proposed secret cache would have consisted mainly of the gang names of the pyramid builders, of which the king's name forms a part of the gang name. Other hieratic marks would also have been found. All of these marks, with the exception of the cartouches, would likely have been unintelligible to Vyse. But because they were found together, they were all clearly related. As such they could all be safely copied as work gang graffiti into the Great Pyramid at suitable locations.
- The Suphis/Khufu cartouche, which Vyse could have recognized as a king's name, is the only cue that he would have needed to successfully pull off a convincing hoax.

- Acting on information received from Perring, Vyse could have later learned that the disc within the Khufu cartouche he had copied (from his secret cache) into Campbell's Chamber could have different spellings. Realizing he had copied what he now believed to be an incorrect spelling of the disc into the chamber, he would subsequently have the cartouche disc slightly altered to reflect what he now believed was the correct spelling. Hill would also update his facsimile drawing of the cartouche disc with this new information before sending it to the British Museum in London.
- Some genuine red ochre paint markings would be found within some of these hidden chambers.

3

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MAN OF MEANS

It would be easy to characterize Vyse (fig. 3.1) in a particular light, as a one-dimensional, cardboard-cutout villain who took advantage of and exploited a situation for his own ends—for fame if not for fortune. But, as with everyone, the man was a much more complex character.

Born Richard William Vyse on July 25, 1784, he was the only son of General Richard Vyse of Standon, Comptroller of the Household of H.R.H. the Duke of Cumberland, and his wife, Lady Ann Howard (a descendant of the Howards of Norfolk), the daughter and heiress of Field Marshal Sir George Howard. In 1812, by royal sign-manual, young Vyse took on the additional name of Howard (from his mother), which allowed him to inherit from his maternal grandmother, Lucy, daughter of Thomas Wentworth, the first Earl of Strafford (1672–1739), the additional estates of Boughton and Pitsford in Northamptonshire.

Fig. 3.1. Self-portrait of Colonel Richard William Howard Vyse, painted in 1816 (Photo: Leonard Cottrell, The Mountains of Pharaoh, *Robert Hale Ltd.)*

Fig. 3.2. Stoke Place, Colonel Richard William Howard Vyse's country estate, Buckinghamshire, England

Most of Vyse's life was spent at Stoke Place, a country estate near the village of Stoke Poges in rural Buckinghamshire, England, the extensive grounds of which were designed by the famous English landscape gardener Lancelot "Capability" Brown.

It was very much a life of privilege and patronage in an age when a rigid social structure meant that everyone knew their "station" in life. Vyse was very much from the landed, ruling class—society's elite. A brief glimpse into Vyse's world is provided in *The Court Journal* of 1833, when Vyse's eldest son, Captain George Charles Richard Howard Vyse, upon reaching his twenty-first birthday (his *majority*), held a celebration on the family grounds at Stoke Place.

> Saturday August 3rd, 1833
> Grand Entertainment at Stoke Park—On Saturday last, Capt. C. H. Vyse, of the 2d Regt. of Royal Horse Guards, attained his majority, when the romantic village of Stoke, near Windsor, was rendered a scene of festivity and rejoicing throughout the day.
>
> The morning was ushered in by the firing of canon in the Park, and the merry peel of the church bells. At one o'clock the children of the charity school in the village, which are entirely clothed and supported by Miss Vyse, were regaled on the lawn.

> After the dinner, a band of music was stationed on the lawn in front of the house. Numbers of the most respectable tradespeople from Windsor, Eton, and the adjacent villages arrived in the afternoon, and dancing and every other rural sport were kept up with great spirit till late in the evening.
>
> About ten o'clock Capt. Vyse returned to the mansion, and was met on the road by numbers of the peasantry, who took the horses from his carriage, and drew him home amid loud shouts of the multitude.
>
> Immediately on his arrival there was a grand display of fireworks on the lawn, after which the company adjourned to a spacious building in the gardens decorated with laurel and flags and festoons of lamps. On the walls were tastefully displayed the family arms, the initials G.H.V., 21, with the motto "Virtue is more than a thousand shields."
>
> A sumptuous repast was then served up on the lawn; Capt. Vyse took the head of the table, supported by his two brothers of the Royal Blues and Royal Navy. Lord Doneraile gave the health of Capt. Howard Vyse, which was enthusiastically drunk; and the gallant Captain returned thanks in an able and appropriate speech. The convivial scene was kept up till a late hour. [1]

In 1963, after the death a year earlier of Vyse's descendant Major General Sir Richard Granville Hylton Howard-Vyse, the estate of Stoke Place and its grounds were purchased by the South Buckinghamshire District Council, and it is now operated as a hotel and conference center. To this day, however, the house maintains links to its historical owners, with one of the rooms named the Vyse Room.

Being from a wealthy military family with strong links to the British aristocracy, most notably the Duke of Cumberland and the Earl of Strafford, it was expected that Vyse would enter into military service, which he did just before his sixteenth birthday, becoming an ensign in the First Dragoons (the Royal Dragoons), a mounted infantry regiment of the British army. By 1837, Vyse had been promoted to the rank of colonel and finally, in 1846, to the rank of major general.

In 1810, Vyse married his wife, Frances, second daughter of Henry Hesketh, and together they had eight sons and two daughters. Many of Vyse's sons also entered into military service, as was expected of them, most serving with some distinction, although Vyse's youngest son, Captain Francis Howard Vyse, brought some dishonor to the family name when he had to resign from the consular service in Japan after a scandal revealed his activity in illicit artifact dealings.

It seems that Vyse, though having served in the military for much of his life, did not care too much for it, and his passion lay elsewhere, most notably in the field of archaeology. Author Leonard Cottrell, who interviewed a descendant of Vyse, General Sir Richard Howard-Vyse, in the 1950s, writes, "Colonel Richard Howard-Vyse, son of General Richard Vyse (1798–1853), came of a military family, with a country seat at Stoke, in Buckinghamshire. From his writings he appears to have been a man of cultivation, though somewhat deficient in humour and—one suspects—rather a martinet. . . . General Sir Richard Howard-Vyse, descendant of the Colonel, tells me that the great pyramid-explorer was better at archaeology than soldiering, and was 'rather a trial to his family.'" [2]

But Vyse's interest in archaeology would have to be placed on the back burner, for one of the family's other keen interests was in politics, with Vyse and his father having served as Members of Parliament (MPs) in the UK Parliament and Colonel Vyse serving also as the High Sheriff of Buckinghamshire in 1824. It is perhaps this period in Vyse's life that is most revealing, giving us an insight into the character of the man who would later go on to become the first person to present an ancient Egyptian king's name from inside hidden chambers of the Great Pyramid at Giza.

QUESTIONS ABOUT VYSE'S CHARACTER

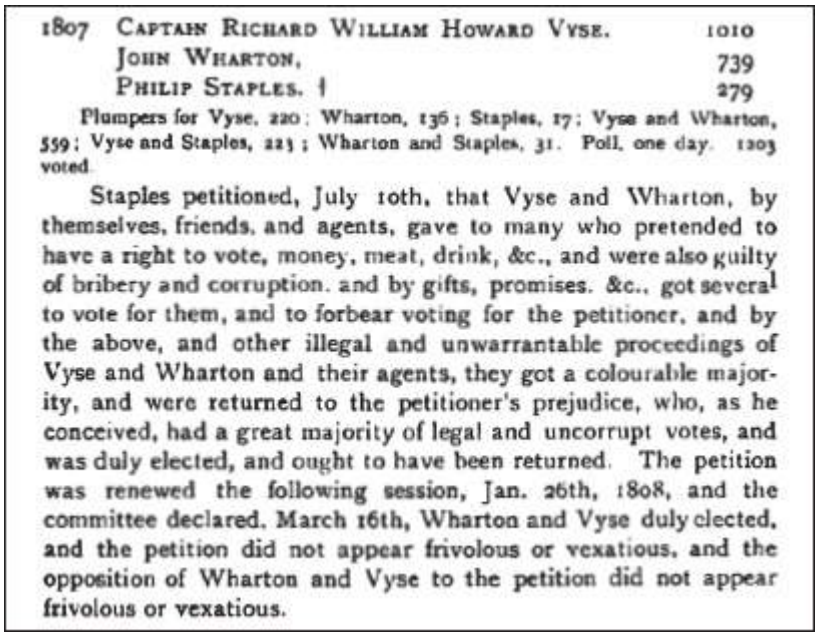
In 1807, Vyse stood as a parliamentary candidate for the borough of Beverley in the East Riding of Yorkshire. After Vyse won the seat (by a margin not seen before or since), Philip Staple (who finished a very poor third in the contest) presented a petition to Parliament, charging Vyse of electoral fraud.

> A petition of Philip Staple, Esquire, was read, setting forth, That at the late Election for Members to serve in Parliament for the Borough of Beverley, in the County of York, John Wharton, Esquire, Richard William Howard Vyse, Esquire, and the Petitioner, were candidates to represent the said Borough; and that the said John Wharton and Richard William Howard Vyse . . . each of them was guilty of bribery and corruption and corrupt practices in order to their being elected to serve as Members for the said Borough in the present Parliament. [3]

Staple's petition to Parliament was grounded on the Corrupt Practices Act of 1696, which stated that "candidates for election who gave or promised any present or reward to any person having a vote, for the purpose of influencing their vote, shall be declared not elected." This included acts by the candidate themselves, on their behalf, or at their expense through direct or indirect activity. Any candidates found guilty of engaging in or even allowing such behavior on their behalf were to be considered "incapacitated" from serving in Parliament and would not be allowed to take their seat. However, due to inadequacies in the 1696 act, it was strengthened in 1729 and again in 1744.

Staple's petition against Vyse, submitted to Parliament on July 10, 1807 (fig. 3.3,), was deferred until January 16, 1808, with a decision finally reached by a parliamentary select committee on March 16, 1808. Unfortunately for Staple, the committee did not uphold his petition, declaring Vyse and Wharton duly elected as the two MPs for Beverley. (In 1807, some UK constituencies returned two MPs.)

With the benefit of history, however, it seems that Staple's petition should have succeeded, for it is now known that of the 1,010 votes that Vyse obtained in the 1807 election, a total of 932 of those votes had been secured by Vyse and his agents with monetary bribes. This fact only came to light some sixty years afterward, when, in 1868, a parliamentary committee began, once again, to investigate the Beverley parliamentary borough for other alleged claims of electoral corruption. From the investigations of the Beverley Bribery Commission on September 13, 1869, we learn of the sheer scale of Vyse's malpractice during his election campaign of 1807.



1807 CAPTAIN RICHARD WILLIAM HOWARD VYSE. 1010
JOHN WHARTON, 739
PHILIP STAPLES. † 279

Plumpers for Vyse, 220; Wharton, 136; Staples, 17; Vyse and Wharton, 559; Vyse and Staples, 223; Wharton and Staples, 31. Poll, one day. 1203 voted.

Staples petitioned, July 10th, that Vyse and Wharton, by themselves, friends, and agents, gave to many who pretended to have a right to vote, money, meat, drink, &c., and were also guilty of bribery and corruption, and by gifts, promises, &c., got several to vote for them, and to forbear voting for the petitioner, and by the above, and other illegal and unwarrantable proceedings of Vyse and Wharton and their agents, they got a colourable majority, and were returned to the petitioner's prejudice, who, as he conceived, had a great majority of legal and uncorrupt votes, and was duly elected, and ought to have been returned. The petition was renewed the following session, Jan. 26th, 1808, and the committee declared, March 16th, Wharton and Vyse duly elected, and the petition did not appear frivolous or vexatious, and the opposition of Wharton and Vyse to the petition did not appear frivolous or vexatious.

Fig. 3.3. Staple's petition of electoral fraud against Vyse was rejected by a parliamentary select committee. (Photo: Scott Creighton, from The Parliamentary Representation of the Six Northern Counties of England *by William Wardell Bean)*

Minutes of Evidence taken before The Beverley Bribery Commission Mr. Joseph Hind recalled; examined by Mr. Commissioner Barstow.

23,935. What are you, Mr. Hind?—Deputy registrar of deeds for the East Riding of Yorkshire.

23,936. How long have you been in Beverley?—All my life. [4]

24,055. (Mr. Barstow.) They were all bribed for Keane?—They were all paid 11 [£1]. We do not call it bribery. It is the old customary payment.

24,056. (Mr. Barstow.) Very well, we will distinguish. [5]

24,063. (The witness.) I should like now to explain to the Commissioners the custom which has prevailed with regard to this payment of money. I do not know whether they understand it or not. It has been customary for generations past. I hold in my hand a book of the date of 1807 containing a list of all the persons paid at that election. I should like the Commissioners to know this for the sake of the credit of the borough, as questions

have been asked of different witnesses as to how it happens that this system prevails. On the first page of this book there is an entry, "Paying Capt. Vyse's voters, 16th June 1808 [*sic*], R. Dalton." Out of 1,010 who voted for Capt. Vyse it appears from these entries that only 78 did not receive money. For a plumper the amount paid was 3l. 8s [£3 and 8 shillings], and a split vote 1l. 14s [£1 and 14 shillings]. There are several persons who did not vote, for a very good reason, for some of them were in prison. At that time they used to pay wives, grandfathers, grandmothers, uncles, aunts, and everybody connected with them. So that many of these freemen have drunk in the system with their mothers' milk.

24,064. (Mr. Barstow.) What is the authority for these numbers?—It is in the writing of Mr. Frederick Campbell, one of my predecessors and afterward mayor of Beverley; it is partly in his writing and partly in the writing of Mr. Bland; and it is added up in the writing of another of my predecessors, Mr. Atkinson. Mr. Bland was another leading gentleman in the town. You will see that there were several persons paid who did not vote. In fact the system was universal. Everyone took the money. It has been handed down to the present time, the principle of it. I am not mentioning it for the purpose of justifying it, but merely that the Commissioners might have a little consideration. [6]

As is clear from the testimony of the Radical councilor Joseph Hind to the Beverley Bribery Commission in 1869, candidates paying their electorate cash for their vote was not an uncommon practice in rotten boroughs such as Beverley, was a malpractice that extended as far back as Vyse's election of 1807, and was undoubtedly happening even before Vyse's election. Indeed, in 1727, one of the victorious candidates in Beverley was unseated on petition, his agents imprisoned, and, as a result, Parliament was forced to update the Bribery Act. In boroughs such as Beverley, treating and bribery were accepted and even expected parts of parliamentary campaigns, even though, as implied by Hind's testimony, the population and the parliamentary candidates well understood that it was illegal to offer and accept bribes of any kind, being in breach of the Treating

Act of 1696 and the Bribery Act of 1729. As historian John Markham explains:

> Men fortunate enough to possess a vote saw it as right and natural that they should be recompensed for their support. Employment, the provision of and payment for nominal duties at elections, patronage and printing orders were all regarded as legitimate demands to make upon a candidate and a necessary and respectable part of his role as a public man. A distinction was clearly drawn by electors between bribery to attract votes and payments and gifts as a *reward* to the loyal supporters of a political party, and those who admitted receiving money often displayed a sophisticated ability to make subtle moral distinctions. [7]

But it also has to be said that not everyone who stood for Parliament was so "morally flexible" or prepared to resort to such unsavory and illegal practices to secure electoral victory. Staple certainly didn't. Hind could not "justify" the electorate of Beverley accepting *rewards* and bribes, for he knew in so doing they were breaking the law of the land. And Vyse would *also* have known and understood that, and, were the truth of his electoral malpractice to have come to light when investigated in 1807 or 1808, he would have struggled to justify his own illegal actions and his electoral success would most likely have been overturned. And even though such corrupt practice was endemic in British elections in this period, simply because others were engaged in such an illegal practice does not make Vyse's actions any less illegal in the eyes of the law—this was a crime punishable by imprisonment.

So in this episode we have our first glimpse into the character of Vyse: that he was a man who would do whatever it took, including perpetrating electoral fraud and spending considerable sums of money to achieve his goal. But what is perhaps even more damning of Vyse in this squalid election of 1807 is that not only did he resort to the illegal act of bribery to secure his victory, but when his methods of securing that victory were later challenged by Staple via a petition to Parliament, Vyse also did not have the

good grace, the honor, to confess to Parliament his corrupt practice but instead self-evidently sought to deny any wrongdoing.

It stands to reason that in being successfully appointed as an MP after the parliamentary investigation had concluded, Vyse must surely have denied any wrongdoing to the investigating committee; he must have lied to the British Parliament about any involvement, directly or indirectly, in bribing the electorate in the Beverley election of 1807. Had Vyse openly confessed to his malpractice, then such an admission would have made it quite impossible for the investigating committee to clear his name (as they did), and Vyse most surely would not have been elected to serve as an MP. In short, Vyse won the Beverley contest of 1807 by bribing his electorate and then by denying and lying about it to an investigating committee of the British Parliament.

In 1812, Vyse again stood as a candidate for the UK Parliament, but this time in the seat for Honiton, another rotten borough in East Devon. On this occasion Vyse's election came about as a result of the Honiton seat being uncontested. In Vyse's time two members of Parliament were elected for the Honiton Parliamentary borough. If only two candidates stood then both were automatically elected to Parliament without the need for an electoral contest, elected without a vote even taking place. If, however, there were more than two candidates, this would trigger an election contest in which a vote would have to take place. Voting in this period was not done by secret ballot. In boroughs such as Beverley and Honiton those fortunate enough to possess a vote (universal suffrage was still a long way away in the early nineteenth-century United Kingdom) would often encourage a third person to stand as a candidate, for they knew that only by having a contested election could they hope to gain financially by commanding a price for their vote.

Curiously, the 1812 election in Honiton, one of the most corrupt boroughs in the United Kingdom at that time, went uncontested as the third candidate, Samuel Colleton Graves from the Radical Party, had allowed himself to be waylaid at Taunton, some nineteen miles from Honiton. How this happened isn't exactly clear, but this story does smack of Graves having been induced in some way to withdraw his candidacy. By his not attending the electoral hustings, then there was no third candidate, and, as

such, there could be no contest, so both of the other candidates would be automatically elected to Parliament.

Certainly from Vyse's perspective it would have been infinitely easier and much less costly to bribe just *one* individual than almost one thousand, as he had done in the 1807 Beverley election. And if he could successfully "encourage" the third candidate to stand down at Honiton, then there would be much less risk of an awkward electoral petition or investigation to deal with afterward in Parliament.

This is, of course, speculation, and we will likely never know the precise details of this particular election and why Graves "allowed himself to be waylaid." But given Vyse's previous malpractice in the 1807 Beverley election, it surely cannot be ruled out that the colonel's corrupt hand may also have been at work in Honiton and that he perhaps influenced Graves with some form of incentive to stand aside and clear the field for Vyse to be reelected to Parliament uncontested.

Later in his life, during his time at Giza, another charge of fraud was leveled against Vyse, which he presents in his own published book, *Operations Carried On at the Pyramids of Gizeh in 1837*. To wit, "A slanderous paragraph, intended to be inserted in the English newspapers, was this day shown to me, which accused Colonel Campbell of having improperly laid himself under obligations to the Pacha by obtaining the firmaun [a permit to excavate]; and which implied the Colonel and myself intended to make our fortunes under the pretence of scientific researches." [8]

Vyse makes no mention here as to the precise nature of the allegations being made against him. Who exactly was behind these allegations, and what evidence did they have against Vyse? In what way did Colonel Patrick Campbell improperly obtain the *firmaun* (in this instance, a permit for excavating in the pyramids of Giza that had been issued in the name of the Italian Egyptologist Captain Giovanni Caviglia)? What was the extent of Vyse's involvement? How exactly were the two men planning to make fortunes "under the pretence of scientific researches"? Who was behind these allegations, and what evidence did they have to back them up? While Vyse's published work remains somewhat vague on these key questions and on who precisely it was that made the allegations (though one must suspect the Italian explorer Caviglia after his very public falling out with Vyse), what this episode demonstrates is that someone believed that the activities

of Vyse in Egypt were improper, and this individual threatened, via the British press, to expose what Vyse was doing, thus, once again, bringing the moral character of Vyse into question.

Of course, everyone makes mistakes in life, doing things that, upon later reflection, he or she perhaps regrets. So it has to be said that simply because Vyse bribed and lied about his electoral activities of 1807 doesn't mean that everything else he ever did, including his work at Giza, should automatically be considered as somehow corrupt. Vyse's claimed discovery of the painted marks in the hidden chambers may indeed have been entirely genuine. But given the character of the man, a man who was clearly determined to do whatever it took and by whatever means to achieve his ambitions, his claimed discoveries at Giza are surely overcast with a dark shadow. If Vyse had *not* committed electoral fraud and subsequently lied about it to Parliament in 1807, his character would have had little or no bearing on the question of the authenticity of his later claim.

But knowing what we now know of Vyse's character we cannot simply ignore it and pretend that the squalid events of 1807 never happened and have no bearing on the character and credibility of the man and, by extension, the legitimacy of his claimed discoveries in the Great Pyramid.

It is not a case of "once a fraud *always* a fraud" or "once a liar *always* a liar." The point is that had these events of 1807 gone unrecorded and Vyse's character had come down to us unblemished, then his personal character would never have been a factor with regard to his claimed discoveries at Giza. But the simple fact is, that because of his previous malpractice, there *are* question marks over his character, and we simply cannot ignore that. We simply do not know if Vyse is a leopard who managed to change his spots, and given this nagging, lingering doubt, we must surely treat his claimed discoveries at Giza with the appropriate level of caution.

In short, was Vyse's claimed discovery in the Great Pyramid his truest triumph or his darkest deed?

CHAPTER THREE SUMMARY

- Vyse was born into the wealthy, landed gentry, with strong connections to the British aristocracy.
- From the age of fifteen Vyse served in the British military, eventually attaining the rank of major general.
- Vyse was a religious man who had more of a passion for archaeology than he ever did for the military.
- Vyse became the MP for Beverley in 1807, having illegally procured 932 of his votes using monetary bribes. This action was in breach of a number of UK anticorruption and bribery laws.
- Vyse did not disclose his corrupt election practices to the UK Parliament, this coming to light only after a later investigation in 1869, long after Vyse's death.
- The petition against Vyse's election win by Philip Staple, a fellow candidate, was not upheld by the UK Parliament.
- Vyse was elected uncontested to the UK Parliament in 1812 when the third candidate in the Honiton constituency "allowed himself to be waylaid at Taunton."
- An allegation of corruption was made against Vyse during his time at Giza. Vyse does not say who made these allegations.

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COLONEL VYSE'S CREATION

The questions have to be asked: Why would Vyse have wanted to perpetrate a hoax of this nature within the Great Pyramid, and what, if anything, would he have gained by so doing? Of course, the first thing to say is that we will likely never know with any degree of certainty if the possible motives presented in this chapter were ever actual or active. On this particular question we can but speculate. There are, however, some clues from Vyse's published work that may point to a possible motive for him to perpetrate such a hoax. To understand why Vyse might have been so tempted, it may help us to first understand something of the time and context in which he and his team operated at Giza.

It is difficult for most of us with our twenty-first-century perspective to imagine a time, less than two hundred years ago, when the pyramids of ancient Egypt were barely understood by Western scholars. Only sporadic accounts of them, often colorful and much exaggerated, were relayed back to the parlors and institutions of the great cities of the West by the occasional intrepid European adventurer. Indeed, it was only fifteen years before Vyse arrived at Giza that Jean-François Champollion had published the first-ever translation of Egyptian hieroglyphics along with the grammatical rules to understanding Egyptian writing, a breakthrough that had remained elusive for thousands of years.

This truly was an age of adventure and exploration, the first tentative steps toward a reawakening and rediscovery of humanity's ancient past. But it also has to be said that not all explorers in Egypt in the early to mid-nineteenth century were concerned with the forgotten culture of this most ancient of countries. Some were more interested in whatever treasures they could lay their hands on, treasures that they could sell to wealthy merchants

and aristocrats in the West, whose thirst for such precious artifacts seemed insatiable.

As briefly touched on, the story of Vyse's time in Egypt is one loaded with conspiracy and intrigue, of seizing success from the jaws of failure, fierce competition, and not a little corruption and backstabbing.

In 1837, Vyse lived in a world that moved at a much gentler pace, when information could take days or even weeks and months to travel between countries and continents. The first commercial electrical telegraph had only just been invented, while the first trans-Atlantic telegraph cable would not be laid down until 1858. Radio and television were items in Vyse's time that remained in the realms of wild fantasy and extraordinary fiction. The Rocket, an early steam locomotive designed and built by George Stephenson, was at this time only eight years old, and the vast global network of rail tracks that we take for granted today had barely just begun. Photography was in its infancy, which is why many expeditions at this time would take artists along to record significant events and discoveries. It is known, for example, that during his travels across Egypt, Vyse employed the services of the artist Edward James Andrews to make plan drawings of the pyramids and drawings of other features at Giza and beyond.

It was an age when the church still ruled much of everyday life and did so with an iron fist, and its creationist doctrine and religious authority would not be challenged for another twenty-two years, when, in 1859, Charles Darwin would publish his theory of evolution in his seminal work, *On the Origin of Species*.

This was an age of great sailing ships and glorious sea battles, famous battles that Vyse would have held in renown. Indeed, less than forty years previous to Vyse's time in Egypt, in 1798, Lord Horatio Nelson defeated Napoleon Bonaparte's navy at the Battle of the Nile, with the final defeat of Bonaparte by the Duke of Wellington occurring some seventeen years later at Waterloo in 1815. It is little surprise then that Vyse, himself a military man, would dedicate two of the hidden chambers he would discover within the Great Pyramid to these two national heroes of British military history.

In 1837 the final battle of the American Revolutionary War to gain independence from Great Britain had occurred only fifty-four years previously, in 1783, and the first shots of the U.S. Civil War would not

occur for another twenty-four years. In the United Kingdom, Queen Victoria would ascend to the throne just one month after Vyse opened Campbell's Chamber, where his claimed discovery of the cartouche of Khufu was found painted on the gabled roof. It is in this distant, bygone age that Vyse lived and worked, and it is within the context of this much-less-connected world where the power and authority of the church held sway that his actions at Giza must be judged.

It is perfectly clear from Vyse's private writings and his published work that he was desperately keen to make an important discovery during his time in Egypt, and in pursuit of this goal he would spend a considerable amount of his personal wealth. Of this desire, he made the following statements in his published book.

- "I wrote to Colonel Campbell from this town, desiring to hear, by a letter directed to Benisouef, whether any discovery of importance had taken place at Gizeh, as, in that case, I intended to return immediately to Cairo, instead of visiting the Faioum." [1]
- "I naturally wished to make some discoveries before I returned to England." [2]
- "I expected to find a sepulchral apartment, to which, I thought it probable, that chamber [Davison's] was an entresol, and the top of the great passage an entrance." [3]
- ". . . extremely desirous, after all the expense incurred, and inconvenience experienced, to endeavor at least to make some discoveries in the Pyramids before I returned to England, which I wished to do without further delay." [4]
- "I still entertained great hopes of finding a sepulchral apartment, and therefore directed that every exertion should be made to get above Wellington's Chamber, for which purpose Daoud [an expert in the use of gunpowder] was employed." [5]
- "All hopes of an important discovery were not given up." [6]

From Vyse's writings it seems clear that he did not consider his discovery of these hidden chambers to be important, for he kept opening

them in hopes that in one of these hidden chambers he would find the true sarcophagus of Suphis/Khufu. (The sarcophagus in the main King's Chamber had long been known to have been entirely devoid of any trace of a human burial, leading some to believe that the King's Chamber was perhaps a decoy burial chamber.)

Spurred on by this belief, it seems that Vyse continued on his quest, pinning hope against hope on finding the king's mummy and treasure. No king had ever been found in situ in any pyramid, and if Vyse could have made such a discovery it would have ensured him a place of honor in history, not unlike the international acclaim Howard Carter later gained with his 1922 discovery of the intact underground tomb of Tutankhamen in the Valley of the Kings.

But in the end, Vyse was destined to be somewhat disappointed. After discovering and opening a total of four hidden chambers inside the upper reaches of the Great Pyramid, his great hope was not to be realized; he found no burial chamber, and he certainly did not find the mummified remains of any ancient Egyptian king (or any treasure that would normally have been buried with a king). By the time his operations were completed at Giza, Vyse had spent something in the order of ten thousand British pounds of his personal wealth, which, accounting for inflation, would be equivalent in today's terms to around one million pounds.

Vyse certainly made some notable discoveries during his operations at Giza and sent many artifacts to the British Museum in London. But ultimately he failed in what seems to have been his key personal objective: finding the sepulchre of Suphis/Khufu.

Had Vyse succeeded in his quest he would have proved that the Great Pyramid truly was a tomb and that Khufu, in all likelihood, had it built circa 2550 BCE. And it is on this last point that we must now focus our attention: Could it be that Vyse's quest was not merely to find just any sarcophagus but was, in fact, to find the sarcophagus of Suphis/Khufu in order to *prove* that this ancient king truly was the builder of the Great Pyramid, a find that would give corroboration to the accounts of a number of ancient historians? But why? Why would it have been of any consequence to Vyse to find corroborative proof that this particular ancient king, Suphis/Khufu, was the builder of the Great Pyramid?

As noted earlier, Vyse lived in an age when the Christian Church still had a very strong influence on the daily lives of most people across Europe. And it seems that Vyse, whose great-grandfather was Bishop of Lichfield, was something of a pious man.

Vyse further writes, “Nor can it be recollected without increased interest, that many of those noble monuments, evincing in their construction so much power and skill, and decorated with so many elaborate devices, were raised in very early ages, certainly at no long time after the deluge; and that they therefore not only afford convincing proofs of the refinement, to which mankind had attained before that great event.” [7]

He also writes, “On its summit a large school has been established for boys. Similar institutions are to be met with in all the principal towns, and sufficiently prove the Pacha’s anxiety to ameliorate by education the condition of his people. Little however can be effected, unless instruction is likewise extended to the females; which, it would appear, can only be accomplished by the introduction of Christianity.” [8]

He further states, “It would also appear that castes were established, that brass and iron were manufactured (without which neither wood nor stone could have been worked), and that the arts had arrived at great perfection before the deluge; and it may reasonably be inferred that many of them survived that great event.” [9]

Vyse’s clear religious outlook was also noted by Leonard Cottrell, who, having interviewed Vyse’s descendant in the 1950s, writes, “He was a deeply religious man, with a profound faith in the literal truth of the Old Testament.” [10]

Vyse also states, “From the time of Abraham to that of our Saviour the connexion is kept up, chiefly, however, as a prohibited land, in contrast to that of Judea; neither is the extreme state of corruption and of idolatry, into which it afterward fell, at all inconsistent with the supposition that, when most other nations were immersed in darkness, and living in the most savage ignorance, Egypt, and, perhaps, some portions of the East, preserved distinct and accurate traditions of the antediluvian world, originally derived from revelation.” [11]

It appears then from the above remarks that Vyse himself was indeed a man of faith and seems to have accepted the Bible as literal fact; the biblical

deluge, in Vyse's view, really did take place and appears to have been regarded by him as a matter of historical truth. But not only that, Vyse seems to have *also* held the view that the pyramids themselves were constructed "*certainly at no long time after the deluge.* "

Given his apparent certainty of the biblical Flood, it is not unreasonable then to conjecture that Vyse would *also* likely have accepted, unquestioningly, the biblical Creation story and thus that the pyramids must have been built some time *after* the year 4004 BCE, the date that was accepted in Vyse's time (by the calculations of the sixteenth-century Archbishop James Ussher) to have been when the Creation occurred. After all, how could the pyramids or Egyptian writing possibly be older than the Creation?

From Vyse's strong religious convictions we may begin to perceive a possible motive for fraudulent activity at Giza. In 1828 the Catholic Church funded Champollion's first (and only) trip to Egypt on the condition that he would never reveal anything that would contradict the teachings of the church. It is not inconceivable that such anxiety might have been rekindled in the church with Vyse's ongoing discoveries. What if he discovered in those hitherto secret chambers a language never before seen, a language that was not Egyptian and that might be shown to predate the biblical Flood? What if something were discovered in those chambers that could challenge the accepted chronology and truth of the Bible, and possibly even predate the Creation itself? What might such a discovery do to the authority of the church and, of course, to Vyse's personal beliefs? If, on the other hand, Vyse could find a known cartouche of an Egyptian king from the known historical period in one of these newly discovered chambers, an Egyptian king from the *known* Egyptian king lists, written in *known* Egyptian text, then that would effectively prove that the pyramid could never have existed prior to the Flood or the Creation; an outcome that the church would, undoubtedly, have found most satisfactory.

In this regard, Vyse writes, "A cartouche might be found, which would determine the date of the constructions." [12]

As to placing the Khnum-Khuf and Khufu cartouches into these hidden chambers of the Great Pyramid, Vyse would simply have regarded such an act as merely *affirming* what many in his time already held to be true, that Suphis, a known king from the ancient Egyptian king lists, was its

builder, thereby firmly locking the structure within the provenance of God's Creation. Vyse may even have regarded his placing of the Suphis/Khufu cartouche into these chambers as undertaking "God's work"; he would be ensuring the authority of the church and, personally, would secure for himself a place of honor in world history books as the man who "found" the Suphis/Khufu name within the Great Pyramid. He would be the man who essentially proved that the Great Pyramid was not older than the Creation, that the last wonder of the ancient world belonged to the second king of the Fourth Dynasty of the ancient Egyptian civilization circa 2550 BCE.

In short, from Vyse's pre-Victorian perspective, the Great Pyramid (and all other pyramids and temples in ancient Egypt) would have made sense to him only in terms of his overarching religious beliefs, beliefs that are now being challenged by twenty-first-century science. And given the powerful influence of such religious beliefs, one might reasonably ponder how the provenance of Göbekli Tepe would have fared had it been discovered in Vyse's time. It is simply inconceivable to imagine that Göbekli Tepe, had it been discovered in 1837, would have been dated to anything remotely like 9500 BCE, the date modern science attributes to this site. In Vyse's time, everything would have had to fit (often forced) into the "religious paradigm" of the Creation date of 4004 BCE.

While this motive remains entirely speculative, we should remember that in the history of humankind many an illegal and immoral act has been perpetrated by people of faith in the name of their religion. The temptation for Vyse to fabricate evidence of the Suphis/Khufu name within the Great Pyramid would have been considerable. As mentioned previously, he had spent a vast amount of his personal wealth in his search for the remains of Suphis but found nothing. There was little of any great importance to show for all his effort and expense, his considerable investment seemingly doomed to become nothing more than a footnote in history—unless, of course, a "miracle" occurred and something important *was* "discovered."

For all the reasons outlined above, if providence was not forthcoming in conferring on Vyse the important discovery he was so clearly desperate to make, then—as his unscrupulous actions to become an MP in the United Kingdom demonstrate—it would be unsurprising if he felt perfectly justified in taking matters into his own hands by giving fate a gentle nudge. And the rest, as they say, is history.

But did Vyse fraudulently place any quarry marks, including the king's various names, within the hidden chambers he discovered and opened? There is a considerable corpus of compelling evidence to suggest that this may well be the case, and we will now consider each of these pieces of evidence in turn, presented in sequential order, commencing at the lowest of the five hidden chambers and working our way up through each chamber toward the topmost and final one, Campbell's Chamber.

CHAPTER FOUR SUMMARY

- Vyse tells us on numerous occasions in his published work that he wanted to make an important discovery during his operations at Giza, possibly even finding the true burial chamber of Suphis/Khufu within the Great Pyramid. Such a discovery would have ensured that his name would have pride of place in world history books.
- Vyse specifically states that finding a cartouche of an Egyptian king within the pyramids might help to date the constructions.
- Given his clear and strong religious beliefs, Vyse may well have wished to ensure that a cartouche was "discovered" within the Great Pyramid that allowed the structure to be dated with a known king from a known historical period; that is, to a time that did not predate Ussher's date of 4004 BCE for the Creation.

5

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EXHIBIT 1

OTHER CHAMBERS , OTHER TEXTS

As shown in (see figure 1.2) there are a total of five so-called stress-relieving chambers above the King's Chamber of the Great Pyramid. The first of these chambers—the chamber directly above the King's Chamber—was not actually opened by Vyse but was, in fact, discovered some seventy-two years earlier, in 1765, by the British consul to Algiers, Nathaniel Davison. The following account of Davison's discovery is from Robert Walpole's *Memoirs Relating to European and Asiatic Turkey.*

> Nathaniel Davison Esq. was British consul at Algiers: he accompanied Mr. Wortley Montague to Egypt, in the year 1763; resided eighteen months at Alexandria; as many at Cairo; and from that place visited frequently the pyramids of Giza. . . . The merit of the discovery of the room in the Great Pyramid at Giza, over the chamber which contains the sarcophagus, is due solely to Mr. Davison: no traveler before or since his time has examined it; nor has anyone been induced by curiosity to descend so far into another part of the same building. [1]

Curiously, Davison gave no account of any painted marks of any kind having ever been found in the chamber that now bears his name. Caviglia,

who made this chamber his living quarters for some considerable time, gave no account of any painted marks therein. Similarly neither of Vyse's assistants, Perring and Hill, or the later archaeologist Alan Rowe—all men who have drawn images of the quarry marks from all the other chambers opened by Vyse—ever made a single drawing of any quarry mark from Davison's Chamber. Zahi Hawass, the former minister of antiquities in Egypt, however, was reported to have observed some painted marks in Davison's Chamber. Hawass undertook an extensive photographic study of all the marks in these chambers in 1996, but he has never made public these photographs.

If there are no obvious quarry marks on the stone walls of Davison's Chamber (as seems to have been testified by no fewer than *six* people—Davison, Caviglia, Vyse, Hill, Perring, and Rowe), why would that be the case? After all, if we consider the profusion of quarry marks in the chambers above Davison's, particularly Lady Arbuthnot's, and the belief by Egyptologists such as Ann Macy Roth that at least two sides of the stone blocks in these chambers would have been painted with the names of the various work gangs at the quarries, then surely, on simple statistical probability alone, at least *some* quarry marks should have been visible on the stone blocks that form the walls, floor, and ceiling of Davison's Chamber.

That no such marks have ever, as yet, been presented remains as peculiar an anomaly today as when Zecharia Sitchin first noted it back in the 1980s. Why should this be? Why is it that the only one of these five relieving chambers that was *not* blasted open with gunpowder by Vyse appears to be the only one that has no painted quarry marks of any kind?

But there is yet another curious aspect to this anomaly. At the end of the southern "star shaft" of the Queen's Chamber (fig. 5.1) a tiny chamber or cavity was discovered beyond a square blocking stone.

In 1993 a small robot named Upuaut II (designed by German engineer Rudolph Gantenbrink) was sent up the southern shaft of the Queen's Chamber, whereupon after an upward journey of some two hundred feet it discovered the blocking stone at the end of the shaft and could go no farther. This blocking stone became known as Gantenbrink's Door. This discovery was followed with another in 2002, when a second robot, Pyramid Rover, was sent up the shaft with a drill attached to bore through

the small blocking stone. The rover was also fitted with a small fish-eye-lens camera that, when pushed through the drilled hole, sent back images of a small cavity with a *second* blocking stone a few inches beyond the first. It wasn't until 2011 that a third robot, Djedi, made the same journey, but this time with an onboard endoscopic camera that when passed through the hole drilled in 2002 was able to twist around to film the walls and the floor of this small recess, revealing some mysterious red-painted symbols located on the floor of this tiny chamber (shown in gray in fig. 5.1).

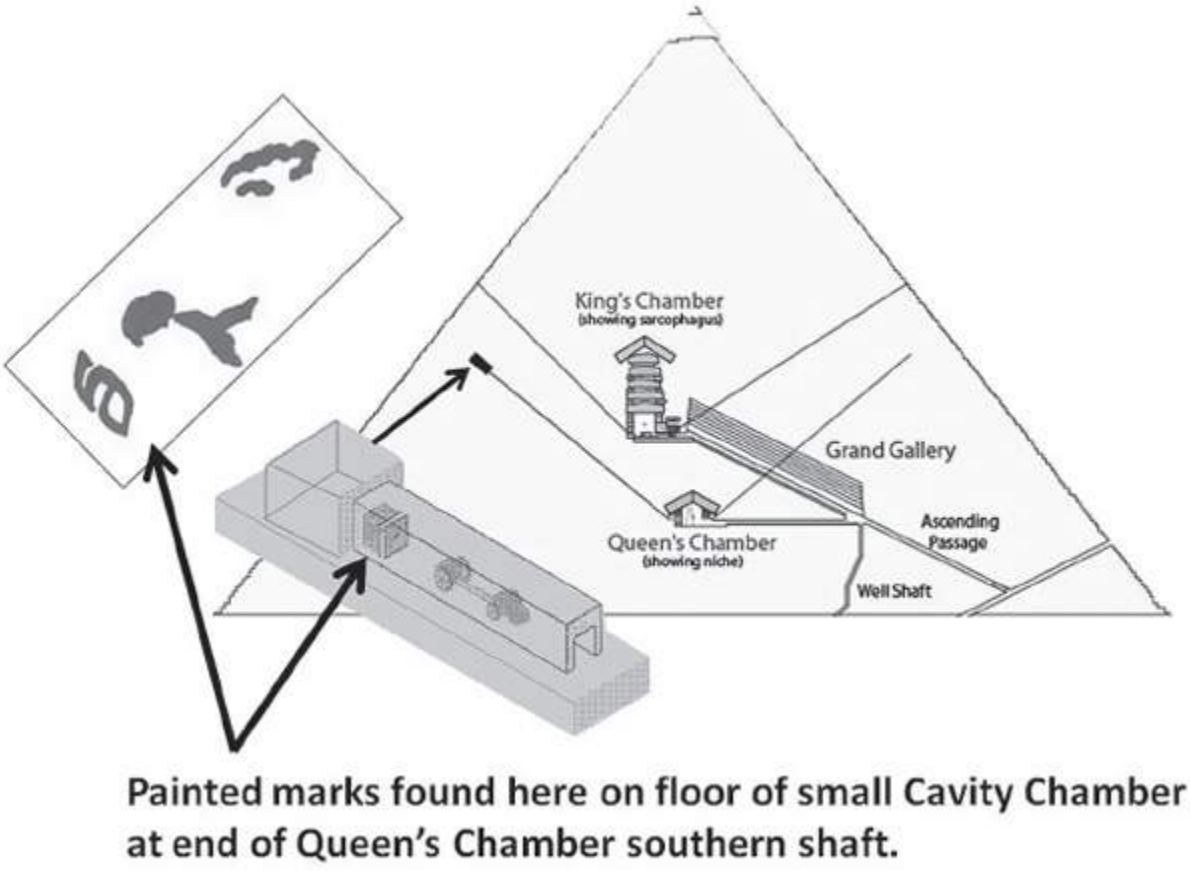

Fig. 5.1. The southern shaft-cavity of the Great Pyramid bears red paint marks on the floor of the chamber. (Image: Scott Creighton)

Independent researcher Luca Miatello, Ph.D., a specialist in ancient Egyptian mathematics, believes the three main symbols on the floor of the shaft-cavity are the numbers 1, 20, and 100, written in old hieratic script (fig. 5.2 below, *left to right*).

Miatello is tentatively supported in his belief by Zahi Hawass and also by James P. Allen, a professor of Egyptology at Brown University. “The signs are not easy to read, but Miatello’s reading is entirely plausible.” [2] This is hardly a ringing endorsement from Allen, and his caution is not without reason. A close comparison of the marks with known hieratic signs representing these numerals from the relevant period is far from convincing (fig. 5.3).

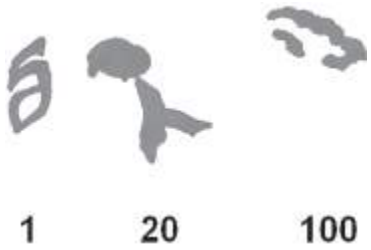

Fig. 5.2. Reproduction of the painted marks on the floor of the southern shaft-cavity, which some Egyptologists believe to be numbers written in old hieratic script. (Image: Scott Creighton)

As we can see, the signs found in the small shaft-cavity (fig. 5.3, *top*) differ quite substantially from the known hieratic signs (fig. 5.3, *bottom*) that represent the numbers 1, 20, and 100.

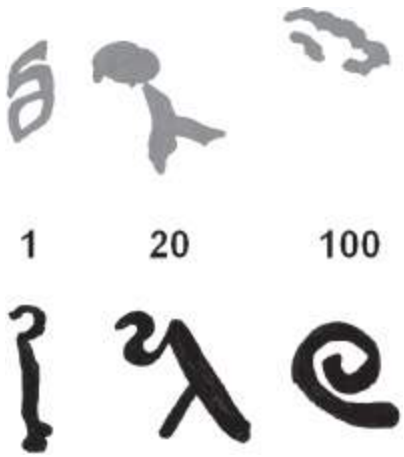

Fig. 5.3. The shaft-cavity signs (top) believed by Luca Miatello to be hieratic numerals bear little resemblance to known Old Kingdom hieratic numeral signs (bottom). (Image: Scott Creighton)

But there is a much bigger problem with this discovery. If Miatello is correct and these marks found on the floor of the shaft-cavity (which are obviously authentic ancient marks) are the numerals he claims them to be, written in an early hieratic script, then the orthography of these signs is clearly at odds with the early hieratic quarry marks found by Vyse in the relieving chambers. This is a very peculiar situation indeed, because the highest relieving chamber (Campbell's Chamber) and the small shaft-cavity are at almost the very *same level* within the Great Pyramid and, as such, would have been constructed at the very same time and, presumably, by the same workers, yet two very different styles of old hieratic numerals are presented (figs. 5.4 and 5.5 on p. 54).

If we accept that Miatello is correct, and the signs from the shaft-cavity (fig. 5.5, *top*) represent the numbers 1 and 20, then why is their orthography so radically different from the set of signs from Campbell's Chamber (fig. 5.5, *bottom*), which also represent the hieratic numbers 1 and 20? And why should this be when each set of numbers was, ostensibly, painted into each of these chambers at more or less the same time? Why are the ancient builders simultaneously using two quite different forms of hieratic script to write these numbers? After all, it stands to reason that in a construction project as complex as the Great Pyramid, clear and unambiguous communication of information, most especially numerical measurements, would have been crucial to the success of the project, so we might reasonably expect that a standard form of numerals would have been adopted and deployed throughout every aspect of the construction.

It makes little sense, then, to find numerals written in two quite different hieratic forms, forms that, according to their paleographic evolution, are believed to be separated in time by many centuries (assuming, of course, that the painted marks present in the shaft-cavity are indeed the numeral signs Miatello believes them to be). If, however, Miatello is incorrect in his belief, and it transpires that the painted marks in this tiny chamber are *not* numerals at all, then we may well have an even *bigger* problem on our hands—signs within an inaccessible chamber, written in a script that we simply do not know of, written by people with a language that is much different from that of the ancient Egyptians of the Old Kingdom period that we find painted on the walls and ceilings only of those chambers opened by Vyse.

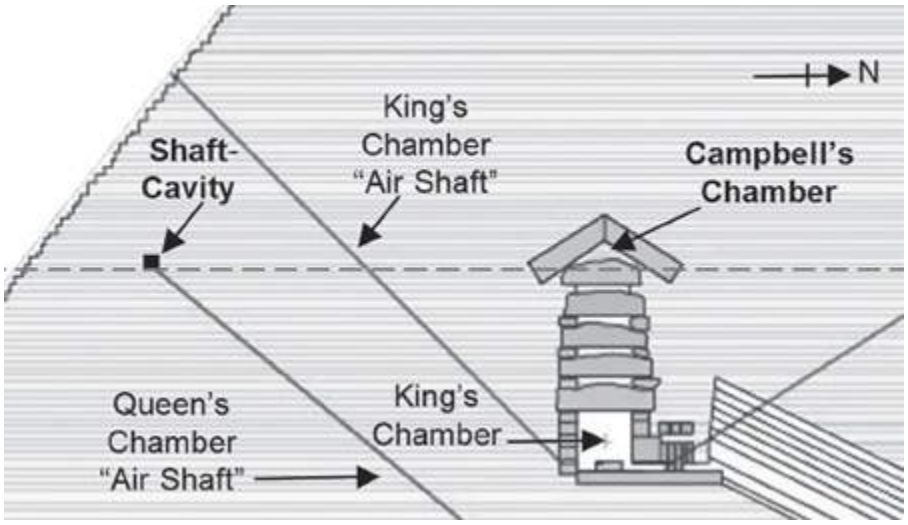

Fig. 5.4. Campbell's Chamber and the shaft-cavity are at the same level (dotted line) and thus were built at the same time yet present two radically different styles of old hieratic numerals. (Image: Scott Creighton)

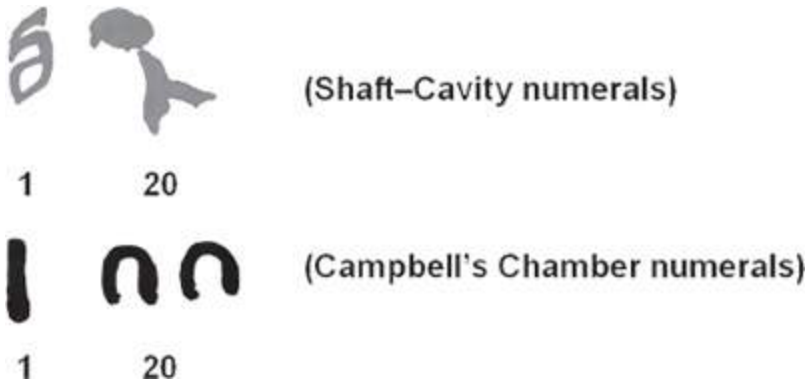

Fig. 5.5. The upper hieratic marks (believed to represent the numbers 1 and 20) were discovered in the shaft-cavity, while the lower hieratic marks (1 and 20) are claimed to have been discovered by Vyse on the underside of the gabled roof within Campbell's Chamber. (Image: Scott Creighton)

In short, because no human hand has ever been near any of the painted marks in the small cavity chamber since it was built, we must logically conclude that the written signs within this tiny chamber are indisputably authentic builders' marks. Why then do we not find a similar orthography of the numerals written in Campbell's Chamber, which, being at the same level of the pyramid, would have been constructed at almost the very same time as the small cavity chamber? How can we resolve this contradiction, this conundrum?

One very obvious solution is to simply acknowledge that the different forms of painted numerals we find in these two chambers were created by two very different people, separated by a vast amount of time. Because Campbell's Chamber (and the others below) was accessible to humans after 1837 (and thus to human interference), it would not have been impossible for someone such as Vyse and his team to find and copy what they believed to be appropriate marks into the accessible chambers, which Vyse discovered and opened, believing the marks being copied into those chambers were of a style of ancient Egyptian numerals that was correct for the period; they would have been blissfully unaware that these marks (numerals) would later be found to be inconsistent with a style of numerals that we now know actually *were* undisputedly used by the builders of the Great Pyramid in the small cavity chamber.

It is worth noting here that the very first marks Vyse discovered in Wellington's Chamber (see chapter 6) were (as noted in his private, handwritten journal) unlike the style of the painted hieroglyphic marks he had observed elsewhere at Giza and beyond. All of which is to say that the only chambers to present painted signs that *clearly* belonged to early dynastic Egypt are those discovered and opened by Vyse and his team. All other chambers or cavities thus far discovered in the Great Pyramid that were *not* discovered and opened by Vyse are either completely devoid of any inscriptions or present a style of painted marks that is inconsistent with the style of the painted marks Vyse presented from the four chambers he opened.

This is a highly peculiar situation and one that surely merits further investigation.

CHAPTER FIVE SUMMARY

- The lowest of the so-called stress-relieving chambers of the Great Pyramid was discovered in 1765 by Nathaniel Davison, the British consul to Algiers. Unlike the chambers above, which Vyse would later discover to contain many quarry marks, the chamber that Davison found has not yielded a single quarry mark.

- None of the later explorers of Davison's Chamber has ever produced any markings from it. r Statistically speaking, we might have expected to find at least some quarry marks in Davison's Chamber.
- In 2011, the robot Djedi, with an onboard endoscopic camera, discovered markings on the floor of the small cavity at the end of the southern shaft from the Queen's Chamber of the Great Pyramid.
- Luca Miatello, a specialist in ancient Egyptian mathematics, believes the markings found by Djedi represent old hieratic signs for the numbers 1, 20, and 100.
- The orthography of the old hieratic signs for the numbers 1 and 20 that were written on the gabled roof blocks of Campbell's Chamber and were claimed to have been discovered by Vyse are entirely different from the old hieratic number signs found by Djedi.
- Given that the small cavity and Campbell's Chamber are at the same level within the Great Pyramid, indicating that they would have been constructed at the same time, it is odd that, in a structure as complex as the Great Pyramid, where numerical standards would have been crucial to the success of the project, the writings in the two spaces present two completely different forms of hieratic numbers (ostensibly) from the very same period.

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EXHIBIT 2

THE SILENT JOURNAL

It is sometimes the case that a particular truth can present itself by what is *not* stated or what is *not* present in a given situation. We find that such a circumstance arises with an analysis of Vyse's *published* work as compared with the account made by him in his *private* field notes.

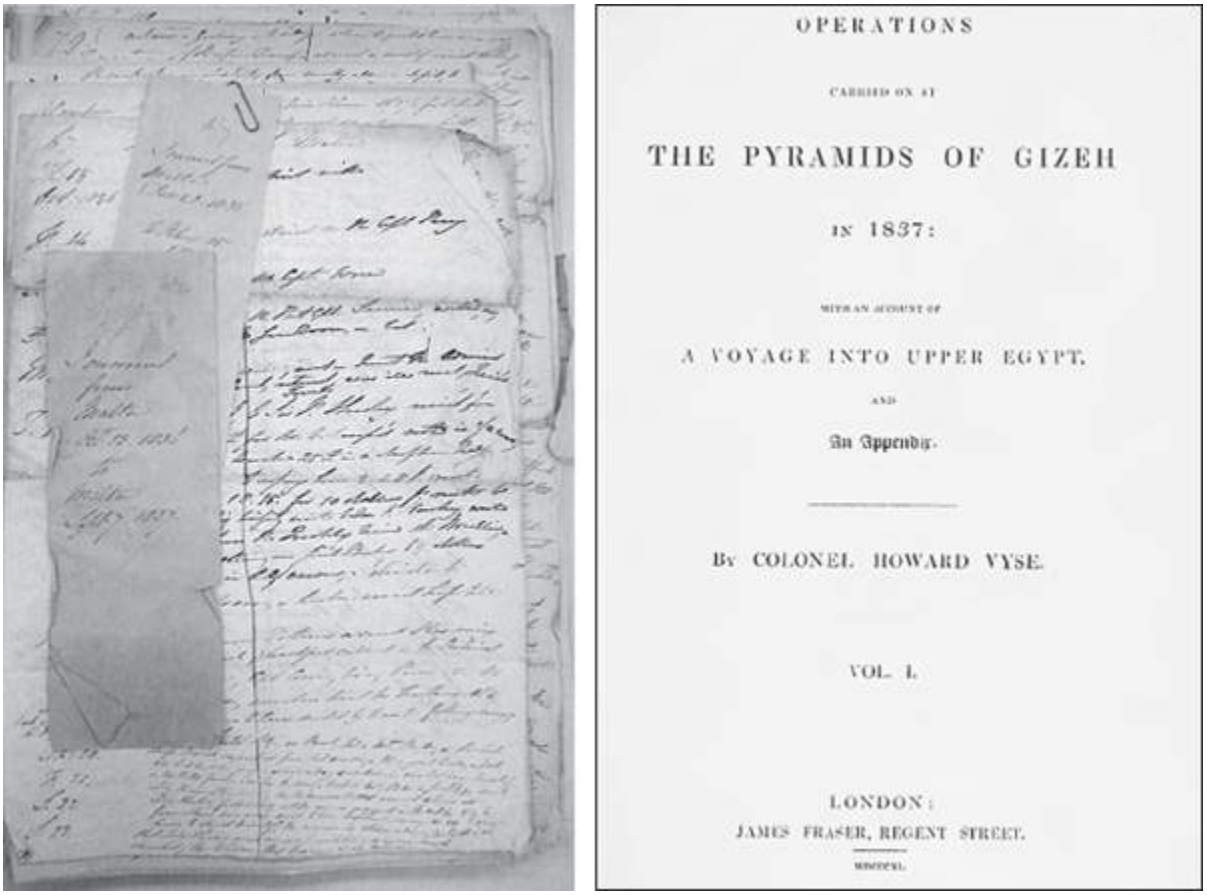
If we were to enter Wellington's Chamber, the first and lowest of the four chambers that were discovered, opened, and explored by Vyse (fig. 1.2), we would find two sets of red-painted marks: one set on the east wall (near to the forced entrance to this chamber) and the second set on the west wall. Fortunately, we do not actually have to go all the way to the Great Pyramid and enter Wellington's Chamber to see what the marks actually look like, because Vyse ensured that all the marks on both walls were fully documented by John Shea Perring and J. R. Hill, two of the colonel's closest assistants.

The marks found by Vyse in Wellington's Chamber were the first pieces of writing ever found within *any* of these Old Kingdom pyramids at Giza, and, as such, Vyse would undoubtedly have fully understood the importance and significance of such a discovery. He describes this history-making, pivotal moment of discovery in his published account as follows:

> The hole into Wellington's Chamber being practicable, I examined it with Mr. Hill. The floor was unequal, as it was composed of the reverse of the blocks of granite that formed the ceiling of Davison's Chamber. It was entirely empty, excepting

one piece of stone thrown into it by blasting. Not an insect or a bat appeared, nor the traces of any living animal. There had not been, indeed, any doorway or entrance; and although some of the granite blocks in the southern and northern walls had lugs, or projections, yet the stones composing the roof rested upon them —so that it was impossible that they could have been moved up as a portcullis. This chamber, in fact, like Davison's and the others afterward discovered, was merely a vacancy, or chamber of construction, to take off the weight of the building from the King's Chamber. Their dimensions are as follows:—King's Chamber, thirty-four feet three inches, by seventeen feet one inch; Davison's, thirty-eight feet four inches, by seventeen feet one inch; Wellington's, thirty-eight feet six inches, by seventeen feet. In the ceilings alone was any exactness of construction preserved.

These were beautifully polished, and had the finest joints, in order most probably to prevent the slightest accumulation of dust or of rubbish. In all other respects, the masonry in these apartments became less perfect as they ascended. The northern and southern walls of Wellington's and of Davison's Chambers were of granite, the eastern and western of calcareous stone; the ceiling consisted of nine blocks of granite laid from north to south, and were, like those in Davison's apartment, of a sufficient length to extend their bearings beyond the walls of the King's Chamber. The average height of the chamber (which varies, owing to the irregular surface of the floor) was about three feet eight inches. Mr. Perring, in the course of his survey, found that these apartments had been finished from the eastward, and that consequently the western sides were last built.



OPERATIONS

CARRIED ON AT

THE PYRAMIDS OF GIZEH

IN 1837:

WITH AN ACCOUNT OF

A VOYAGE INTO UPPER EGYPT,

AND

An Appendix.

By COLONEL HOWARD VYSE.

VOL. I.

LONDON:

JAMES FRASER, REGENT STREET.

MDCCCXL.

Fig. 6.1. Vyse's private journal (left) and published book (right) (Image: Scott Creighton)

For a day or two after the chamber had been opened, those who remained in it became blackened as if by a London fog: as this effect gradually disappeared, I conceive it to have been occasioned by blasting, and by the sudden admission of the air. Upon first entering the apartment, a black sediment was found, of the consistence of a hoar-frost, equally distributed over the floor, so that footsteps could be distinctly seen impressed on it, and it had accumulated to some depth in the interstices of the blocks. Some of this sediment, which was sent to the French establishment near Cairo, was said to contain igneous particles. When analyzed in England, it was supposed to consist of the exuviae of insects; but as the deposition was equally diffused over the floor, and extremely like the substance found on the 25th instant at the Second Pyramid, it was most probably composed of particles of decayed stone. If it had been the remains of rotten wood, or of a quantity of insects that had

> penetrated through the masonry, it would scarcely have been so equally distributed; and, if caused by the latter, it is difficult to imagine why some of them should not have been found alive when the place was opened evidently for the first time since the pyramid was built.
>
> Having ordered the entrance to be enlarged, I went round the other works. I afterward wrote to Colonel Campbell, and sent with my letter the idols found in his tomb. Mr. Perring and Mr. Mash having arrived, we went in the evening into Wellingtonâ€™s Chamber, and took various admeasurements, and in doing so we found the quarry marks. [1]

As we can see from Vyse's account, he and his team examined this chamber fairly thoroughly upon their first visit, yet it seems that it was only upon their *second* visit to Wellington's Chamber (on the evening of the same day it was first opened, March 30, 1837) that the "quarry marks" were found. Oddly, Vyse does not present in his published volumes any details of the actual quarry marks that were found in this chamber. However, on May 9 of that year, Vyse instructed Hill to make 1:1 facsimile drawings of the marks in the chambers they had thus far opened (which are now deposited in the British Museum). While Hill recorded only the quarry marks on the west wall of Wellington's Chamber (a gang name with its cartouche), Perring, as part of his plan survey, made drawings of the quarry marks found on the east *and* west walls of Wellington's Chamber (fig. 6.2).

In Perring's drawing of the painted marks from the east wall of Wellington's Chamber (fig. 6.3), we observe a small bird alongside some other marks (geometric shapes in a partial oblong). These marks do not appear like typical ancient Egyptian hieratic script, while the quarry marks drawn by Perring and Hill from the chamber's west wall (fig. 6.4), although somewhat sketchy, present a gang name that bears the royal cartouche of Khnum-Khuf (believed to be Khufu's full birth name) written in old hieratic script.

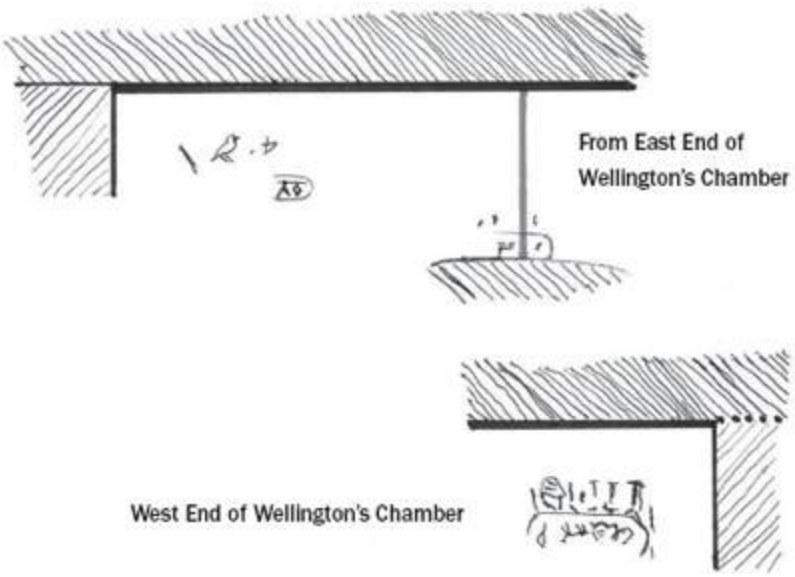


Fig. 6.2. Painted marks found in Wellington's Chamber as recorded by J. S. Perring. Note the small bird beside some geometric marks and partial cartouche with vertical line (top left, east wall) and the upside-down gang name with its cartouche (bottom, west wall). (Image: Scott Creighton based on original drawing by J. S. Perring)

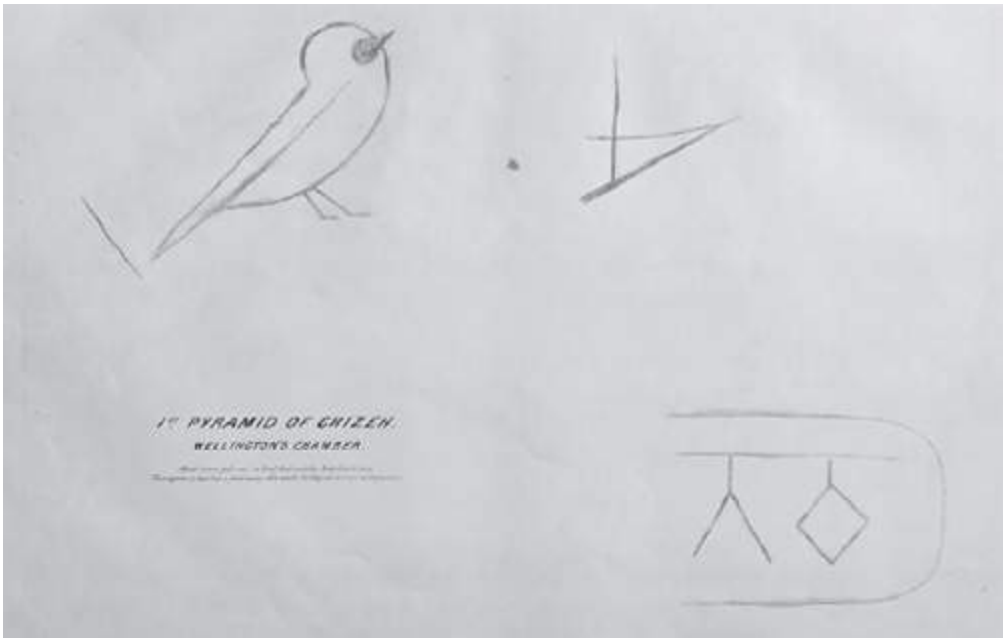


Fig. 6.3. Enlarged section of Perring's drawing (east wall) of a bird with some geometric marks close by (Image J. S. Perring)

Fig. 6.4. Artist's impression of quarry gang name with associated Khnum-Khuf cartouche in Wellington's Chamber (west wall). (Image: Scott Creighton, based on original drawing by J. R. Hill)

It is worth noting here that Vyse would frequently interchange the term "quarry marks" with the word "hieroglyphics." In 1837 few would have made the distinction we make today between painted quarry marks of hieratic script and sculpted hieroglyphics. To Vyse these red-painted signs (i.e., hieratic quarry marks) were simply painted hieroglyphics. The painted geometric marks on the east wall of this chamber, however, are unusual, being unlike typical hieratic or hieroglyphic signs.

Because Vyse makes no mention in his published account of any additional painted marks having been found in Wellington's chamber at any later date, we are thus obliged to accept (according to his published account) that *all* of the marks on the east *and* west walls of this chamber, including the partial cartouche (on the east wall) and the full gang name with its associated cartouche (on the west wall), constitute the totality of the "quarry marks" Vyse states were found in Wellington's Chamber on the evening of March 30, 1837.

But just how accurate is this official account?

Oddly, while Vyse's published book states simply, "we found the quarry marks," thereby implying that *all* of the marks from Wellington's Chamber (including the partial cartouche on the east wall and the full gang name and its associated Khnum-Khuf cartouche on the west wall) were found on the evening of March 30 (his second visit to this chamber), his *private* diary of the very same evening paints a quite different picture. Thanks to a brief, online collaboration [2] with independent researcher Martin

Stower, the events of this momentous evening were transcribed from Vyse's cryptic handwriting: "In Wellington's Chamber, there are marks in area of the stones like quarry marks of red paint, also the figure of a bird near them, but nothing like hieroglyphics."

And that is it. Vyse's private account (fig. 6.5) of his second visit to this chamber (with Perring and Mash) makes no mention of any identifiable quarry marks in this chamber and, remarkably, makes no mention whatsoever of *any* royal cartouche (partial or otherwise) having been found —just red marks that are *like* quarry marks (i.e., the red-painted geometric marks with the figure of a bird near them, fig. 6.3). Note also Vyse's use of the word "area" (singular). Had Vyse also found the quarry marks on the west wall of this chamber at this time (as he implies in his published account) then wouldn't he surely have written "areas" (plural) in his private account?

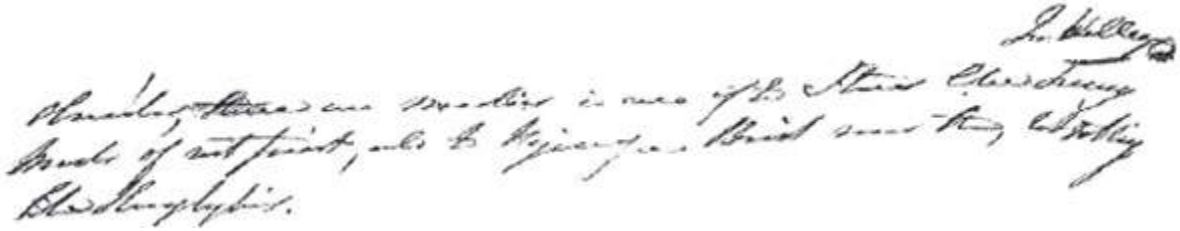


Fig. 6.5. Extract from Vyse's private journal, March 30, 1837 (Photo: Scott Creighton)

So, while Vyse's published book simply tells us that on the evening of March 30, 1837, "quarry marks" were found (without ever specifying *which* quarry marks), his private journal speaks *only* of the marks on the east wall near the entrance (and says that the marks he found looked "nothing like hieroglyphics," i.e., nothing like the usual red-painted quarry marks he would have been familiar with). And it is worth repeating—in this account there is absolutely no mention of *any* cartouche having been found in this chamber. Clearly then, Vyse's private and published accounts are somewhat at odds with each other, and we have to ask why that would be; why does Vyse's *published* account state "we found the quarry marks" and yet his *private* account states he found "nothing like hieroglyphics" (i.e., nothing like typical red-painted hieratic quarry marks)?

This is all the more puzzling because, among the painted marks on the east wall of Wellington's Chamber, we find a partial cartouche, and those on

the west wall of Wellington's Chamber present the *very first* full royal cartouche of a king ever found in any of these pyramids—painted quarry marks that Vyse most certainly *would* have regarded as "hieroglyphics"—an important discovery that would have given Vyse what he craved: a discovery that would ensure his place of honor in the world's history books. Yet Vyse makes no specific mention of these marks, of this king's cartouche, whatsoever in either his private or published accounts. There is no "cartouche found!" moment in Vyse's private journal. Instead, Vyse, through his vague statement in his published account, merely *implies* that the partial cartouche on the east wall and the gang name (with its all-important cartouche) on the west wall was among the quarry marks that were found.

Again, we have to ask *why?* Why is the elephant missing from the room, so to speak? In consideration of this question it seems that there are two possible scenarios to explain why Vyse neglected to make any mention in his private journal or in his published book of these highly prized quarry marks, in particular the king's cartouche on the west wall of Wellington's Chamber.

1. The gang name with its all-important cartouche was present on the west wall of the chamber when Vyse and his team first entered but was overlooked by everyone during their extensive examination of this chamber and perhaps was only discovered sometime afterward, although no such later discovery is ever explicitly stated in any of Vyse's accounts.
2. The gang name with its prized cartouche was not present on the west wall of this chamber on the evening of March 30, 1837 (contrary to its implied presence in Vyse's published account). So the glyphs on the west wall (and the partial cartouche on the east wall) must, therefore, have been placed there sometime *afterward* by Vyse and/or his assistants.

What Vyse states in his published account about this date is, of course, quite true; he *did* find marks in Wellington's Chamber (those on the east wall), but when we consider the details of the discovery he relates in his private account, it appears that he *did not* discover the west wall marks

(gang name with its cartouche), possibly because these particular marks simply were not yet in the chamber at this time. Why then does Vyse, in his published account, imply that *all* the quarry marks in this chamber (east and west walls) were discovered *at the same time,* when, according to his private account, they evidently were not? Why does he say in his published account that "the quarry marks were found" and yet his private account tells us he found nothing like hieroglyphics (i.e., red-painted quarry marks of hieratic script)? Is this a case of Vyse "lying by obfuscation," fudging the extent and truth of his discovery in his published account through the use of vague language, language that allows him to be economical with the truth and that, it has to be said, presents him with a measure of plausible deniability?

So here we have our first hint that all may not be what it seems in Vyse's published account of his claimed finding of the quarry marks in the four hidden chambers he opened. While this contradiction between private and published accounts may not, of itself, prove any wrongdoing, it most certainly does raise a number of legitimate questions: Why does Vyse fail to mention the major discovery of a royal cartouche in his private account of March 30, 1837, then imply its discovery on this date in his published account? Why the lack of clarity, the obfuscation? And why did he omit all the quarry marks found in this chamber from his published work when these hieroglyphs—particularly the cartouche of the king's name—reveal the very first royal name *ever* to have been found inside *any* of these pyramids?

As previously stated, the discovery of this cartouche alone would have given Vyse what he so clearly sought—a cartouche that would allow the dating of the constructions—but on this matter Vyse's private journal remains strangely silent. If nothing else, this is very peculiar behavior indeed.

After Wellington's Chamber, Vyse went on to blast his way into three more hidden chambers within the Great Pyramid and to discover what he describes in his published account simply as "quarry marks" or "a great many quarry marks." Among these other quarry marks Vyse would find a number of other royal cartouches of Khnum-Khuf and one complete cartouche of Khufu. This is surely an odd way to describe the discovered cartouches, because Vyse:

A. explicitly states that he was in search of a cartouche that might help to date the structure, and

B. draws and makes reference to the cartouche of Suphis/Khufu several times in his *private* field notes. He absolutely knew during his time in Egypt what a cartouche was, its importance to his own particular quest, and certainly how the Suphis/Khufu cartouche should look.

And yet, for all of this, in his published book Vyse describes the royal cartouches he allegedly found simply as "quarry marks," conferring upon them no more import than any of the other quarry marks discovered, creating the impression in the reader's mind that he is wholly ignorant and blissfully unaware of the historical significance of the royal cartouches.

It is almost as if Vyse, in his published account, has somehow lost all his prior knowledge of what a cartouche is and their importance to his quest; it seems that the painted cartouches he found are all now just meaningless quarry marks to him. However, from his private journal it is perfectly clear (as we shall see in chapter 13) that Vyse well understood that a number of cartouches were among the quarry marks he had Hill make facsimile copies of and had afterward sent to the experts at the British Museum, yet in his published account he makes no specific mention of having identified *any* cartouche from these chambers. There is no "eureka!" moment, no entry in his published account (or private account) saying something like, "Today among the quarry marks the cartouche of Suphis was discovered."

And we have to ask *why not?* Why does Vyse, in his published account, defer to Samuel Birch of the British Museum to make the identification of the Khnum-Khuf and Khufu cartouches among all the facsimiles of quarry marks sent from Giza? Why, in his published account, is Vyse being so coy, so shy about coming forth with his own knowledge, particularly of the Suphis/Khufu cartouche? Why the pretense in his book that he knows little if anything of the marks he had found in these chambers when his *private* journal clearly shows that he most certainly *did* recognize the Suphis/Khufu cartouche and, of course, would have well understood its significance to his quest? In short, why, in his published account, is Vyse going out of his way to understate his own knowledge of the quarry marks

he claims to have found, knowledge that is so clearly evident in his *private* account?

It is certainly odd behavior on the part of Vyse. Of course, were Vyse to have presented himself in his published book as having little knowledge of what the quarry marks he claims to have found actually represented, then no one could ever accuse him of fabricating the marks himself. After all, how could he possibly have fabricated the Suphis/Khufu cartouche in the Great Pyramid if he is seen as having little knowledge of what the quarry marks were, let alone knowing that among the quarry marks there were to be found the various names of an ancient Egyptian king?

Of course, if this were the only question that Vyse's private and published accounts raised, then the case of forgery in the Great Pyramid would be a very thin case indeed. There are, however, many more facts to be unfolded in the forthcoming pages of this book, and these further facts raise many other legitimate questions regarding the provenance of these marks Vyse claimed to have discovered.

CHAPTER SIX SUMMARY

- Vyse entered Wellington's Chamber (the first chamber to be discovered and opened by him) on March 30, 1837. He entered the chamber a second time on the evening of the same day with two of his assistants. It was during this evening visit, Vyse tells us in his published account, that the quarry marks were found. Vyse does not specify in his published account precisely which marks were found, thereby implying that *all* quarry marks subsequently presented from this chamber were found at the same time.
- Vyse's private journal speaks only of marks found on the east wall of the chamber, some odd geometric signs near the figure of a bird, and states that the marks in this area looked "nothing like hieroglyphics."
- In his private account Vyse makes no mention of finding the Khnum-Khuf cartouche on the west wall of this chamber, a discovery that is implied in his published account. This is an odd omission given that this is precisely what Vyse tells us in his published book he was hoping

to find: “A cartouche might be found, which would determine the date of the constructions.” The elephant is missing from the room.

- Given also his desire to make an important discovery, it is very odd indeed that Vyse makes no mention in his private journal of finding this royal cartouche in Wellington’s Chamber—the *first* ever royal cartouche within the Great Pyramid and thus a highly important event indeed that would have ensured Vyse a place in the history books.

7

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EXHIBIT 3

THE EYEWITNESS

In any investigation, civil or criminal, one thing that investigators always seek is a reliable eyewitness. The eyewitness account of the events can help to corroborate a particular set of circumstances and can often be the decisive factor when there is more than one competing version of a particular event.

As outlined in chapter 1, in his 1980 book *Stairway to Heaven,* Zecharia Sitchin first put forward the controversial claim that the painted marks found by Vyse in the four stress-relieving chambers of the Great Pyramid had been forged by Vyse with the assistance of two of his closest assistants, Hill and Perring.

While much of the evidence Sitchin presented in support of his controversial claim has been, as a result of inadequate research, comprehensively debunked, there are certain aspects of his original investigation that remain valid even to this day, pieces of evidence presented by Sitchin that have never, as yet, been satisfactorily answered.

One such piece of evidence (eventually published in Sitchin's 2007 book, *Journeys to the Mythical Past*) was a copy of a page from the radio logbook belonging to Walter Martin Allen, a ham radio enthusiast and amateur genealogist, which Allen had sent to Sitchin some years earlier.

In *Journeys to the Mythical Past,* Sitchin writes of this contact by Allen.

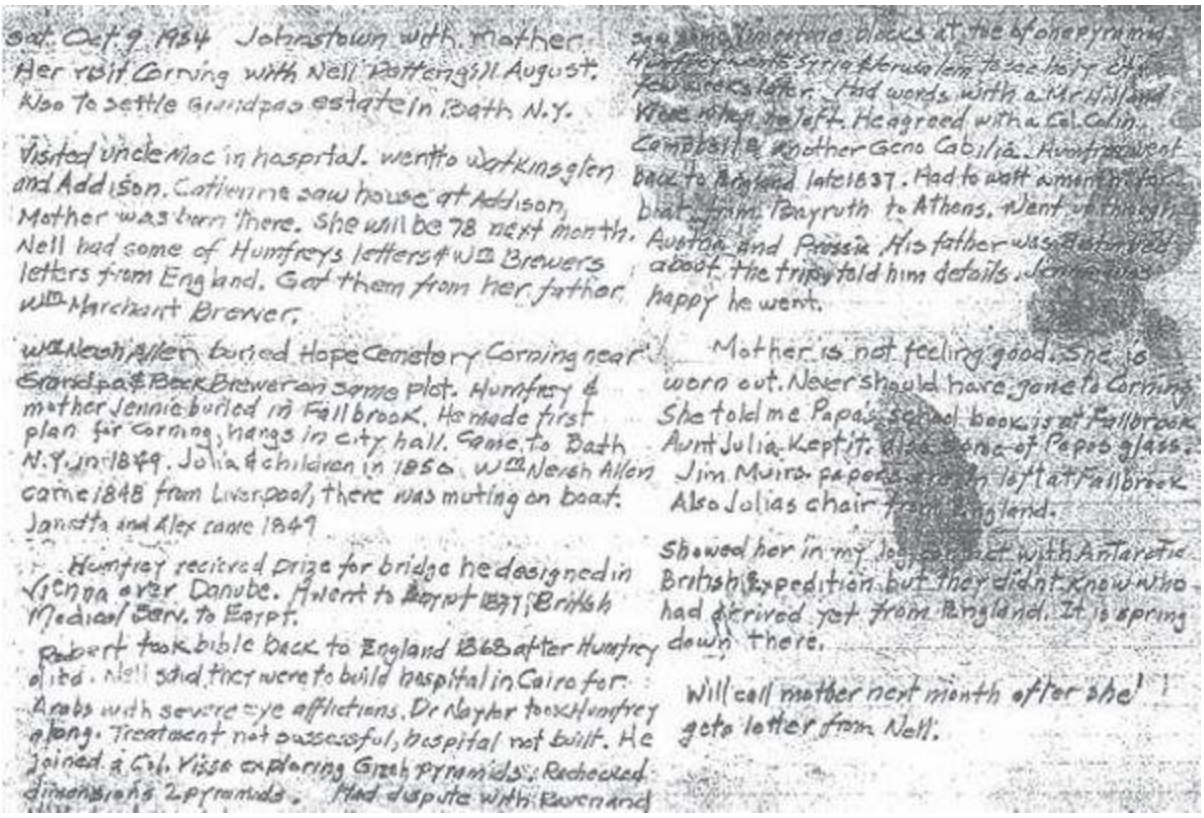
> In May 1983, three years after *The Stairway to Heaven* was published, I received an astonishing letter. It was from a Mr. Walter M. Allen of Pittsburgh, Pa. "I have read your book," he [Walter Allen] wrote. "What you say about the forgery in the Cheops pyramid was not new to me." His great-grandfather, he wrote, was an eyewitness to the forgery!
>
> "I have your letter of May 7th and am literally flabbergasted," I [Sitchin] wrote him back. "That my conclusion could be supported by a virtual eye-witness was beyond my wildest expectations!" . . . He signed it "Walter M. Allen. AFTER 150 YEARS" [1]

Allen had learned of Sitchin's pyramid forgery theory in late March 1983 through his interest in *The Unexplained,* a weekly mysteries column written by George Cunningham-Tee for the *Pittsburgh Press*. In his column Cunningham-Tee had outlined Sitchin's pyramid forgery theory (from *The Stairway to Heaven*), and this revelation so resonated with Allen that it prompted him to contact Sitchin directly, explaining to the author that while he had been researching his family's history in 1954, he had come across information (from discussions with his mother and some family elders) that his great-grandfather Humphries Brewer had actually worked with Vyse and his team at Giza in 1837.

As he discussed his great-grandfather's life with his elderly relatives, Allen took notes, writing the key details of their discussions (which included some family letters from his great-grandfather's time) into some blank pages of his radio logbook (fig. 7.1).

The following is a transcription of figure 7.1's handwritten text from Allen's logbook (all spelling and punctuation as entered in the logbook).

> *Sat Oct 9 1954 Johnstown with mother. Her visit Corning with Nell Pattengill August. Also to settle grandpa's estate in Bath N.Y.*
>
> *Visited uncle Mac in hospital. Went to Watkingsglen [Watkin's Glen] And Addison. Catherine saw house at Addison. Mother was born there. She will be 78 next month. Nell had some of Humfreys letters & Wm Brewers letters from England. Got them from her father Wm Marchant Brewer.*


Sat. Oct. 9 1954 Johnstown with mother.
Her visit Corning with Nell Pattengill August.
Also to settle Grandpas estate in Bath N.Y.

Visited Uncle Mac in hospital. went to Watkinsglen
and Addison. Catherine saw house at Addison,
Mother was born there. She will be 78 next month.
Nell had some of Humfreys letters & Wm Brewers
letters from England. Got them from her father
Wm Merchant Brewer.

Wm Neish Allen buried Hope Cemetery Corning near
Grandpa & Beck Brewer on same plot. Humfrey &
mother Jennie buried in Fallbrook. He made first
plan for Corning, hangs in city hall. Came to Bath
N.Y. in 1849. Julia & children in 1850. Wm Neish Allen
came 1848 from Liverpool, there was muting on boat.
Janetta and Alex came 1849

Humfrey received prize for bridge he designed in
Vienna over Danube. H went to Egypt 1837, British
Medical Serv. to Egypt.

Robert took bible back to England 1868 after Humfrey
died. Nell said they were to build hospital in Cairo for
Arabs with severe eye afflictions. Dr Naylor took Humfrey
along. Treatment not successful, hospital not built. He
joined a Col. Visse exploring Gizeh pyramids. Rechecked
dimensions 2 pyramids. Had dispute with Raven and Hill

[illegible] blocks at top of one pyramid.
Humfrey went to Syria Jerusalem to see holy city
few weeks later. Had words with a Mr Hill and
Visse when he left. He agreed with a Col. Colin
Campbell & another Geno Cabilia. Humfrey went
back to England late 1837. Had to wait a month for
boat from Bayruth to Athens. Went [illegible]
Austria and Prussia. His father was [illegible]
about the trip told him details. Jennie was
happy he went.

Mother is not feeling good. She is
worn out. Never should have gone to Corning.
She told me Papa's [illegible] book is at Fallbrook
Aunt Julia kept it. Also some of Papas glass.
Jim Muirs papers [illegible] left at Fallbrook
Also Julias chair from England.

Showed her in my log [illegible] with Antarctic
British Expedition but they didn't know who
had arrived yet from England. It is spring
down there.

Will call mother next month after she
gets letter from Nell.

Fig. 7.1. Logbook entry of Walter Allen dated Saturday, October 9, 1954, citing his great-grandfather Humphries Brewer and his apparent eyewitness account of forgery at the Great Pyramid in 1837. (Image from Journeys to the Mythical Past *by Zecharia Sitchin)*

Wm Neish Allen buried Hope Cemetery Corning near Grandpa & Beck Brewer on same plot. Humfrey & mother Jennie buried in Fallbrook. He made first plan for Corning, hangs in city hall. Came to Bath N.Y. in 1849. Julia & children in 1850. Wm Neish Allen came 1848 from Liverpool, there was mutiny on boat. Janetta and Alex came 1849.

Humfrey received prize for bridge he designed in Vienna over Danube. H went to Egypt 1837, British Medical Serv. to Egypt.

Robert took bible back to England 1868 after Humfrey died. Nell said they were to build hospital in Cairo for Arabs with severe eye afflictions. Dr. Naylor took Humfrey along. Treatment not sussessful, hospital not built. He joined a Col. Visse exploring Gizeh pyramids. Rechecked dimensions 2 pyramids. Had dispute with Raven and Hill about painted marks in pyramid. Faint marks were repainted, some were new. Did not find Tomb. Saw some limestone blocks at top of one pyramid. Humfrey went to Syria & Jerusalem to see holy city few weeks later. Had words with a Mr. Hill and Visse when he left. He agreed with a Col. Colin Campbell & another Geno Cabilia. Humfrey went back to England late 1837. Had to wait a month for boat from Bayruth [Beirut] to Athens. Went

up through Austria and Prussia. His father was disturbed about the trip, told him details. Jennie was happy he went.

Mother is not feeling good. She is worn out. Never should have gone to Corning. She told me Papa's school book is at Fallbrook. Aunt Julia kept it. also some of Papas glass. Jim Muirs papers are in loft at Fallbrook. Also Julias chair from England.

Showed her in my log contact with Antarctic British Expedition but they didnt know who had arrived yet from England. It is spring down there.

Will call mother next month after she gets letter from Nell.

The controversial aspect of Allen's 1954 logbook entry lies at the foot of the first column, where he writes:

He joined a Col. Visse exploring Gizeh pyramids. . . . Had dispute with Raven and Hill about painted marks in pyramid. Faint marks were repainted, some were new. Did not find Tomb. [2]

Evidently, from this eyewitness account passed down in family letters, two of Vyse's closest assistants, Raven and Hill, were painting new marks in the Great Pyramid and painting over some faint marks that were already there. And it seems that Brewer, Allen's great-grandfather, took exception to the actions of Raven and Hill and had a dispute with them about what they were doing. Allen's account further states:

Had words with a Mr. Hill and Visse when he left. He agreed with a Col. Colin Campbell & another Geno Cabilia. [3]

So here we have in Allen's logbook page the names of many of the key players at Giza in 1837, albeit with some misspellings of the less common or obvious names (to be expected in a semi-oral tradition). Ideally, of course, it would have been preferable to have had access to the original family letters that Allen's logbook entry was based on, but although he tried to locate these documents some thirty years after first penning his logbook entry, it is unsurprising that they were not to be found. As matters stand, all

that we are left with is the brief account, written by Allen himself based on his discussions with family elders in 1954.

Bizarrely, in an attempt to debunk the account of Allen, skeptics have made various allegations to the effect that Brewer (because of his complete absence in Vyse's published work) wasn't a real person and even that the personage of Allen was but a fabrication (presumably by Sitchin) and that this eyewitness account was entirely fabricated in order to corroborate Sitchin's forgery claim. But that is absolutely not the case, as it can be shown that both Humphries Brewer and Walter Allen are verifiable people and that they were indeed of the same family.

Humphries Brewer was born in the Parish of Box, Wiltshire, England, on February 28, 1817, and studied in London to become a civil engineer. He married Julia Orton in 1846, and the couple moved from England to America in 1849, settling in the small community of Fallbrook in Pennsylvania, where Brewer became the manager of the Fallbrook Mining Company. After a very successful career, Brewer's life was tragically cut short when he died in 1867, aged just fifty years.

Here we have Brewer's obituary from the *Watkins Express,* January 16, 1868.

Watkins Express

JANUARY 16, 1868

DEATH OF HUMPHRIES BREWER — We copy, by request, the following obituary notice from the *Wellsboro Herald:*

It is with a melancholy feeling that we announce the death of Humphries Brewer. We cannot suffer the occasion to pass without passing some feeble tribute to the memory of one who was endeared to almost every person with whom he has ever been associated. His sudden and untimely death has fallen with crushing weight on the hearts of his family and friends; as well as upon the business public in this county. The place he occupied is now a blank. The commanding position to which he had carved his way, will long wait for a claimant. Though not an old man he had earned a name for business ability, and enjoyed a reputation amongst the many persons with whom he had been associated that few persons have been fortunate enough to win.

Humphries Brewer was born in the Parish of Box, Wiltshire, England and died on the 25th day of December last, aged 50 years, 9 months and 27 days.

The writer of this article is not sufficiently acquainted with the earlier parts of his life to give a correct history of it. Enough, however, is known of it to state that he had the advantages of early training; that he was thoroughly educated in all the higher branches of mathematics; and that he was an accomplished geologist before he came to this country.

He had also traveled through Egypt and the Holy Land, and his mind was well stored with an accurate knowledge of the history of that portion of the Old World.

He emigrated to this country some twenty years ago; since which time he has resided at Blossburg and Fall Brook. His knowledge of geology led him into this locality, and he began to make early examinations into the coal deposits in and about Blossburg. The summers of 1857 and 1853 were mostly spent by him and Mr. D. S. Magee in making explorations upon the land where Fall Brook now stands. The location of the first drift; the plan of the Rail road from Blossburg to Fall Brook; the construction of the Schutes, platforms and other coal fixtures were all the fruits of his energy and will. In fact Fall Brook with its immense interest has all grown up under his nurture and care; not a blow has been struck, not an improvement made except under his direction. In less than ten years he has changed it from a barren and rugged wilderness to a place of immense business and great productive wealth.

Hundreds of men are constantly there. It has opened one of the best markets in the county, and disbursed thousands of dollars monthly, among the people.

Mr. Brewer united with his other qualities that of an accomplished engineer. In the intricate and difficult business of the mining and railroad interests this was a most valuable qualification. He was also an ingenious mechanic, and has left behind as an evidence of it many valuable inventions at Fall Brook. In his business character we find that assemblage of virtues which made him so invaluable. He possessed what is rarely found in business men, in combination, clear perception, great energy, and great caution. Blessed with an almost instinctive perception of character, he read men at a glance. The business he controlled at different times would have employed several common men; yet he was enabled by the energy and power of his mind to so guide and control it, that it appeared to be easy and smooth. Mr. Brewer was an honest man and constantly trusted with thousands; placed where his name was law, and where his judgment dictated what was right between his fellow men. Yet he has gone to his grave without a stain of dishonesty upon him. No man has said, no person will ever say that he wronged them. His heart was always warm and generous. There are hundreds that gratefully blessed him while he lived, and we know (for we have heard) many of the poor and

dependent bemoan his loss with tears in inventions at Fall Brook. In his business character we find that assemblage of virtues which made him so invaluable. He possessed what is rarely found in business men, in combination, clear perception, great energy, and great caution. Blessed with an almost instinctive perception of character, he read men at a glance. The business he controlled at different times would have employed several common men; yet he was enabled by the energy and power of his mind to so guide and control it, that it appeared to be easy and smooth. Mr. Brewer was an honest man and constantly trusted with thousands; placed where his name was law, and where his judgment dictated what was right between his fellow men. Yet he has gone to his grave without a stain of dishonesty upon him. No man has said, no person will ever say that he wronged them. His heart was always warm and generous. There are hundreds that gratefully blessed him while he lived, and we know (for we have heard) many of the poor and dependent bemoan his loss with tears in their eyes. He was just, manly, and natural in all he did. Free from flattery and mockish sensibility, it may be truly said that no man was ever deceived by him. He was taciturn in business, but always truthful.

We shall miss him in Fall Brook, when we go there. The people of Wellsboro and Cowanesque will miss his counsels and his energy in the improvements which were soon to be made under his guidance. But above all will his family and his intimate friends, who were in daily intercourse with him, miss him in the social relations. To them he was beloved as few men are; but he rests in the bosom of his mother earth, upon the rugged mountain where he spent the last years of his life, in the midst of a population that depended upon and loved him; where the strongest efforts of his life had been made, and with all the associations and landmarks of his own late efforts about him. He is a part of Fall Brook. She is the production of his genius and it is well that he should sleep here.

So clearly Humphries Brewer was a very real and highly regarded individual, and as we can see from his obituary, he did indeed travel to Egypt in his early life. But what of Allen and his relationship to Brewer? What do we know about that?

As indicated briefly in this chapter, Allen was something of an amateur genealogist, spending much of his time researching his family history (fig. 7.2). This 1977 article from the *Pittsburgh Press* (later the *Pittsburgh Post-Gazette*) gives us a little insight into Allen's interest in tracing his family roots and shows that this was a passion he had for much of his life, passing that interest on to his daughter and granddaughter.

Fig. 7.2. This photo of Walter Allen and family members, from the Pittsburgh Press, was captioned "Mrs. Mary Ann Lipsman, her daughter, Heather, 8, and father, Walter Allen, are excited about the way their family tree is branching out."

Mary Ann Allen-Lipsman is "putting flesh on the bones" of her ancestors.

Mrs. Lipsman of Mt. Lebanon is one of hundreds of Western Pennsylvanians checking family stories in libraries, archives, churches, and courthouses to find the roots and fill out the branches of a family tree.

Seven years of research have taken her and her father, Walter Allen of Bethel Park, as far back as 1300 in one branch.

It also took them as far away as the British Isles in a three-week "genealogical safari" two years ago.

"We wanted to find out who our ancestors were, how they suffered, why they came to the United States and under what conditions they arrived," Allen said.

"We found rebels in the (*second*) Jacoby Rebellion in Scotland (*in 1745*) who deserted and were wanderers in fear of savage execution," Allen said. "We found rebels in the 1798 Irish

> Rebellion. We found a few were executed. We found fishermen and cattle drovers."
>
> One of their ancestors, Humphries Brewer, came to Pennsylvania in 1849 and made the first major discovery of semibituminous coal in Fall Brook, now a ghost town in Tioga County. [4]
>
> (Excerpted from the *Pittsburgh Press*. Copyright *Pittsburgh Post-Gazette,* 2015, all rights reserved. Reprinted with permission.)

As we can see from this *Pittsburgh Press* article, Humphries Brewer is identified as one of Walter Allen's ancestors and arrived in America in 1849. There is no doubt, then, that both Brewer and Allen were real people and that they were related. As such, it is not unreasonable to expect that a story from Brewer of forgery occurring during his time working with Vyse at the Great Pyramid could very well have survived and been passed down the generations in written and oral forms to eventually reach Allen, who would finally commit the account to his logbook.

The difficulty with all of this, as briefly stated above, is that in Vyse's book *Operations Carried on at the Pyramids of Gizeh in 1837* there is a complete absence of Brewer's name; there is not a single mention of this individual anywhere in Vyse's published work. This glaring absence has prompted a number of skeptics to question the credibility of Allen's logbook account, inferring that the whole Brewer story is itself some elaborate hoax perpetrated to corroborate Sitchin's forgery claim. And given that Allen's logbook account was not published until 2007 in Sitchin's *Journeys to the Mythical Past,* some seven years after Allen's death, the chief suspect of this alleged hoax is Sitchin himself.

This suspicion exists despite both Allen and Sitchin appearing on the same Pittsburgh radio show in 1983 discussing the pyramid forgery claim and Allen's logbook confirmation of it from his great-grandfather. We are also expected to believe that Sitchin would falsify something about Allen's great-grandfather Humphries Brewer in one of his books, something that Allen's surviving family could have very easily discovered and called foul. Sitchin would have been very silly indeed to have even contemplated such a thing, let alone to carry it out.

But still the skeptics refuse to accept the Allen logbook account as a credible piece of evidence. This skepticism is typified by the authors Ian Lawton and Chris Ogilvie-Herald, who write in their book, *Giza: The Truth:*

> So the only "family records" that apparently still exist are those in Allen's logbook. The real contemporary evidence, the letters supposedly written by Brewer to his father, have never been produced, either to Sitchin or by him. Sitchin asserts that dates, names and other data corroborate these claims. Yet we know that Vyse was scrupulous in recording the names and activities of his senior staff, and also meticulous about giving credit for important discoveries to those involved, even if, as in the case of Caviglia, he had already fallen out with them. Since Brewer was apparently "the very stonemason from England whom Col. Vyse engaged to use gunpowder inside the pyramid" (Sitchin's words), it is surely appropriate to ask why his name is entirely absent from the three volumes of Vyse's *Operations Carried on at Gizeh*. And unless Sitchin can come up with better evidence than this—at the very least the contents of the logbook, verified by an independent witness and preferably scientifically tested to authenticate its date—it is inadmissible. [5]

In fairness (as stated previously), it would indeed have been preferable to have had access to the original testimonies and/or documents on which Allen based his logbook notes. As matters stand, the explosive content of Allen's logbook, without some kind of corroboration, amounts to little more than hearsay. The story may well be true, but without something to authenticate it, it is destined to simply be ignored by mainstream Egyptology. In the words of Lawton and Ogilvie-Herald, this particular piece of evidence will be regarded as "inadmissible" until it is somehow corroborated. (One cannot, however, miss the clear double standard at play here in that these two authors demand that, in order to accept Allen's logbook as credible evidence, it be "scientifically tested to authenticate its date" but, at the same time, make no demands for such scientific tests to

establish the authenticity of the actual quarry marks themselves or of Vyse's account of his "discovery" of them.)

So what is there, if anything, that could help corroborate or otherwise indicate the authenticity and veracity of Allen's logbook account? It seems that if Brewer did truly work with Vyse at the pyramids and did have a dispute with Raven and Hill about painting marks inside the pyramid and then charged them with forgery, this would surely have been enough to have Brewer's existence at Giza entirely expunged from Vyse's published work —*especially* so if there was any truth to such an allegation (a point that seems to have been entirely overlooked by Lawton and Ogilvie-Herald).

But even though Brewer's name is conspicuous by its absence in Vyse's *published* work, this may not be the case with Vyse's *private* journal. It occurred to me that if Brewer had, as Allen's account tells us, been working with Vyse and his team for some time before their dispute, then perhaps Brewer's name might be mentioned in Vyse's private journal but simply written out of his finished work, redacted from the official record of Vyse's operations for a rather obvious reason.

According to Allen's account, his great-grandfather had apparently ended up assisting Vyse at Giza only after his original mission with the British Medical Service to Egypt to assist in the design and construction of an eye infirmary for a Dr. Naylor (who was mentioned in Vyse's book) was cut short. It seems that Naylor's treatment for Egyptian workers with ophthalmia (a severe eye affliction) was unsuccessful, hence the reason why the hospital project did not go ahead. It seems that while Naylor returned to Europe, Brewer stayed on to assist Vyse and his team.

I tracked Vyse's private handwritten journal to a small library in Aylesbury, England, in April 2014, and later analysis of the six hundred or so pages (from digital photographs) showed that the journal did contain, at the relevant time period, what appeared to be the name Brewer and possibly even H. Brewer. It has to be stated, however, that Vyse's highly cursive handwritten style and the faintness of some of the ink make it difficult to be absolutely certain that the examples found are indeed the name Brewer.

Accepting, however, that Brewer was working with Vyse and his team at Giza in 1837, then we have to ask, Why would Vyse have totally expunged this name from his published work?

Skeptics such as Lawton and Ogilvie-Herald often point to the dispute between Vyse and Giovanni Caviglia, pointing out that Vyse writes extensively in his published work about the severe disagreement between these two men. (Caviglia had essentially accused Vyse of usurping the Italian explorer's discovery of the hidden stress-relieving chambers for himself, ensuring also that Caviglia was removed from the Giza site and that the firmaun was transferred to Vyse. It should be stated, however, in the interest of fairness, that Vyse rejected Caviglia's allegations and presented his own, quite different, account of the dispute.) [6] The reasoning goes that if Vyse could so openly write in his published book about the disagreement he had with Caviglia, then, had there also been a dispute with Brewer, Vyse would have had little problem also including that dispute in his published book. That Vyse made public the Caviglia dispute but not the Brewer dispute, the skeptics conclude, means there never was a dispute with anyone called Brewer, and by extension, Brewer didn't ever work for Vyse at Giza.

But this is a somewhat myopic view that serves merely to oversimplify the situation. While Caviglia was a very well-known, long-standing, and influential figure in Egypt with many important discoveries already to his name (and crucially with the search permit for Giza originally made in his name), Brewer, on the other hand, was but a young man barely twenty years of age, was fresh out of his studies to become a civil engineer, and had no standing or influence whatsoever with anyone in Egypt. He was the new kid on the block who had arrived on the scene almost by accident and, insofar as Vyse would have been concerned, of little significance. He most certainly would not have been, as Sitchin claimed and Lawton and Ogilvie-Herald repeated, one of Vyse's "senior staff."

Vyse's dispute with Caviglia was also a very public affair involving a number of other senior and influential people, and, as such, Vyse could hardly have avoided making mention of this dispute in his book to give his side of the story. However, the dispute with Brewer (assuming it did occur) would most certainly have been viewed by Vyse as an accusation from a "nonentity," a young upstart, and could have been easily handled internally, dismissed, and quietly brushed aside. And, naturally, after having made such an accusation against Vyse and his team, Brewer would undoubtedly have been regarded as persona non grata and immediately been given his

marching orders from the site by the humorless Vyse—as seems to have been the case.

Other faults the skeptics find with Allen's brief account relate to the prize Brewer is said to have received for the design of a bridge over the Danube; they correctly point out that the only bridge being constructed across the Danube around Brewer's time was the Széchenyi Chain Bridge to link the cities of Buda and Pest, designed in 1839 by William Tierney Clark and completed by him in 1849. How then could Brewer possibly have received a prize for a bridge over the Danube when, clearly, it was Clark's bridge design that was built across this river? If this claim in Allen's account is so obviously wrong, the critics point out, then what else might be wrong?

The first thing to say here is that Brewer's obituary makes no mention of him having won such a prize for any such bridge, a rather glaring omission (were it to have been true), one would have thought. Notably, in Allen's logbook account it does not say that his great-grandfather's bridge design was actually built; all it states is that Brewer received a prize in Vienna (not Buda or Pest) for a design of a bridge to span the Danube.

This writer personally knows of architects and engineers today who have won prizes for designs of bridges to span the River Clyde in my home city of Glasgow—designs that were never actually built. And I also know that other bridges were subsequently built over the River Clyde having been designed by other designers. Winning a bridge design prize, perhaps at college or university, does not mean that your bridge design was ever intended to be built. And it does not say this in Allen's account—just that his great-grandfather won a prize for a bridge *design* in Vienna, and this may well be perfectly true.

It does seem, though, that Brewer did, in fact, spend some of his engineering career working on the Széchenyi Chain Bridge, for we are told in the *Watkins Express,* "The Engineer and General Superintendent of the Mines is Mr. Humphrey Brewer, who lives in a large white house on a knoll nearby. He is an Englishman by birth, and was an Assistant Engineer in the construction of a Suspension Bridge over the broad waters of the Danube. Drifting about he finally reached Blossburgh." [7]

But how would Brewer have come to work on this bridge? Brewer's father, William Jones Brewer, worked with engineer George Burge on

Isambard Kingdom Brunel's Box Tunnel at Bath. Burge went on to win the contract for the foundations of the Széchenyi Chain Bridge; thus a loose connection with the Brewer family and this bridge is established via Burge.

It is perhaps the case, then, that later accounts of Brewer's life conflated these two quite separate events—his bridge design prize (perhaps won at university) and his later employment on the Széchenyi Chain Bridge—into one and the same event, thereby confusing later generations of Brewer's family into thinking their great-grandfather had designed the bridge that was eventually built across the Danube. Such are the perils of the oral tradition, but by the same token, this confusion, in a sense, actually adds credence to Allen's account; yes, it may be slightly muddled in places (like, for example, mistaking "Col." as an abbreviation for "Colin" Campbell as opposed to Colonel Patrick Campbell), but it was not at all the fabrication that some would have us believe. It would seem highly improbable that, if Allen's account were itself a hoax (as some skeptics have implied), it would include an episode in Brewer's life that could be so easily disproved.

TIME AND PLACE

Is there anything else that might help us determine the authenticity of Allen's logbook account? As it happens, this brief passage presents a couple of intriguing snippets that, on the balance of probability, point toward the account being a true and genuine record of historical events.

If we are to believe some of the skeptics who imply that Allen's account is but a fabrication, then whoever supposedly fabricated the account went out of their way to undertake extensive research into Allen's family history, even knowing fine details such as that Helen Pattengill (née Brewer) was known by the family as Aunt Nell; they knew which uncle was in the hospital in 1954 and knew the very house where Allen's mother was born.

Of course, some would argue that Allen himself knew all of this information and that he was party to Sitchin's (alleged) hoax and fabricated this account to help corroborate Sitchin's forgery theory. This is unlikely in the extreme, because there is other material contained in Allen's logbook

account of the forgery at Giza that contradicts Sitchin's version as well as other information that neither Allen nor Sitchin could ever have known, information that has only come to light in 2014 as part of my own research into this controversy.

But there are other, much less obvious details that add credibility to Allen's logbook account. If this document was fabricated, then the research that went into producing it is truly remarkable. Certainly the names and roles of all the key players of Brewer's time at Giza (Campbell, Vyse, Naylor, Caviglia, Perring, Raven, and Hill) could have been easily gleaned from Vyse's published work (the most obvious source for information and one we know that Sitchin relied on heavily for his own research). But it is the subtle, almost inconsequential details in Allen's brief account that are far more revealing.

Allen writes in his notes that his great-grandfather traveled from "Bayruth to Athens" (presumably Beirut to Athens) and then onward through Austria and Prussia. Note that Allen writes "Prussia" and not Germany. Clearly we have someone here who understood that in 1837 Germany did not actually exist, so the use of the name Prussia in Allen's account is perfectly correct for the period.

But the depth of the historical understanding of this period goes much deeper. Given that there were no railway networks in 1837, how exactly would one have managed to travel from Athens directly to Austria? Given that Austria is a landlocked country (fig. 7.3), it could not be reached by ship, so from Athens how would one have gotten there without passing through a number of other countries?

Fig. 7.3. It is not currently possible to travel directly, by land or sea, from Athens into Austria, because Austria is a landlocked country bordered by many other countries.

Brewer could easily have sailed from Beirut to Athens, but how could he then go from Athens directly to Austria? It is quite simple. In 1837, direct travel from Athens into Austria was perfectly feasible for, at that time, Austria was not the landlocked country that it is today but had an empire that extended all the way to the Adriatic Sea (fig. 7.4).

In other words, it would have been perfectly feasible for Brewer to travel by sea from Athens directly to Austria (probably to the seaport of Trieste, which is now part of northeast Italy) and from there onward through Austria and directly into Prussia—just as Allen's handed-down family account informs us. And it may well have been that on this homeward journey, possibly while sailing along the Danube, that Brewer learned of the bridge that was soon to be built across the river (linking Buda and Pest) and used his father's connection to Burge to gain employment there as an assistant engineer.

Fig.7.4. Austria in 1837 extended to the Adriatic Sea and was bordered to the north by Prussia.

In another part of Allen's account, he writes:

> *Showed her [Allen's mother] in my log contact with Antarctic British Expedition but they didnt know who had arrived yet from England. It is spring down there.* [8]

This entry would seem to be a reference to a contact Allen had made at that time (in 1954) with the British expedition to Antarctica, presumably by shortwave radio communication. When we check the Antarctic expedition records, we find that there was indeed a British-Norwegian expedition to Antarctica in 1954 when Allen was writing all of these events in his ham radio logbook. And one further small detail here—Allen was based in Pittsburgh, Pennsylvania, and was writing this account in October 1954, which, of course, in Antarctica in the Southern Hemisphere would indeed have been the springtime; a small detail here for sure, but it is precisely this type of small detail that can so easily trip up the casual forger.

So, once again, we are confronted by an inordinate amount of remarkably detailed and accurate historical knowledge by the supposed fabricator of Allen's logbook. We are bound to ask, Is it likely that a

supposed fabricator of this logbook account would have gone to such lengths, to offer such precise period detail and a deep understanding of the geopolitical state of the world in 1837, in order to produce a piece of fabricated evidence simply to back up a claim made by some author about the Great Pyramid? Or is it more likely that, invoking the principle of Occam's razor, the much simpler truth of the matter is that all these subtle historical details in Allen's account are accurate *not* as a result of extensive and detailed research on the part of some alleged hoaxer but simply because they are indeed part of a handed-down oral history from people who lived in and knew the world as it was in 1837?

THE WRONG NAME

There is one other telling detail to support that Allen's logbook page is not the result of research by some supposed fabricator. In Allen's account it seems that his great-grandfather Humphries Brewer had a dispute with both Raven and Hill about painted marks in the pyramid. Now, if Allen's logbook account was a fabrication (to support Sitchin's claim), then it stands to reason that Vyse's published book of his discoveries would have been the key source of information for any fabricator to understand the events and key players at Giza. As stated already, these books were certainly Sitchin's key source of information about Vyse's explorations.

However, in Vyse's *published* work he makes no mention anywhere in any of his volumes of Raven ever having assisted anyone, anywhere, at any time with the quarry marks that were supposedly found. According to Vyse's published account, Raven, along with a handful of others, was merely a witness to corroborate the likeness of the facsimile work undertaken by Hill (on Vyse's instruction). That witness attestation is the total extent of Raven's relationship to and involvement with the painted quarry marks in these chambers.

In his book Vyse informs us that he himself had copied some of the quarry marks, that he had instructed Hill to make 1:1 facsimiles of them, that Perring was to make a complete plan survey of the various chambers (including the quarry marks), and even that Mash had copied some hieroglyphs. But nowhere, not once in Vyse's entire published work, is

Raven *ever* mentioned in the context of copying *any* of the quarry marks that were found.

In *Stairway to Heaven,* Sitchin, in making his initial allegation of forgery against Vyse, clearly understood this reality from Vyse's published account; that is, that Raven was simply *not* in the frame or in any way involved with painting any of the marks, and, as such, Sitchin implicates *only* Vyse, Hill, and (tacitly) Perring of having perpetrated forgery. He writes, "Were Vyse and Hill—possibly with the tacit connivance of Perring—morally capable of perpetrating such a forgery?" [9]

Sitchin clearly had no idea or even the remotest inkling that Raven was in any way involved, but Allen's 1954 logbook entry clearly indicates that he was. Thus, from a potential conspiracy point of view between Sitchin and Allen, it simply makes no sense whatsoever for Allen's account to accuse Raven of painting marks into the pyramid when there is no indication *anywhere* in Vyse's published work (Sitchin's primary source) of Raven ever having a paintbrush in his hand. It surely would have been better for a hoaxer (assuming, as some do, that the Allen logbook account was itself a fabrication) to have continued to identify the *same* people that Sitchin had already identified.

In summary then, Sitchin initially identifies Vyse, Hill, and (tacitly) Perring as the culprits, whereas Allen's account identifies Hill and Raven. If this were a conspiracy between Sitchin and Allen then surely the obvious course of action would have been to corroborate Sitchin's initial suspicions by identifying the *same culprits* (i.e., Vyse, Hill, and Perring) in Allen's account.

We will come back to this point in chapter 13 with another piece of evidence from Vyse's *private* journal, a piece of evidence that, contrary to Vyse's *published* account, does indeed place a paintbrush firmly in Raven's hand and, as such, corroborates Allen's logbook account, which states that Raven was indeed the accomplice to Hill, not, as Sitchin believed, Perring (although Perring may still have been tacitly involved).

THE PAINTED NAMES

Not all skeptics attempt to dismiss Allen's logbook out of hand, and some (even if begrudgingly) accept the authenticity of the account, if only at face value. They point out that the painting of marks that Raven and Hill were involved in within the Great Pyramid, as mentioned in Allen's logbook account, was nothing more than painting the names of Wellington, Nelson, Lady Arbuthnot, and Campbell into the chambers, as instructed by Vyse, who had dedicated specific chambers to each of those individuals.

Thus, the critics insist, the painting being done by Raven and Hill had nothing whatsoever to do with the forging of any hieratic quarry marks but was simply the innocent and "legitimate" painting of these names onto the stones in the newly discovered chambers.

Allen's logbook account, however, scotches this idea, as it clearly states, "Faint marks were repainted." The names of the British notables had only *just* been painted with heavy, black paint and would hardly have become "faint marks" that required repainting so soon. Thus Allen's account is clearly speaking of other faint marks that were repainted; that is, ancient marks that had faded with age, marks that required *red paint* and not the black paint used to dedicate the chambers to several illustrious British historical figures.

And why, in any case, would the names of Wellington and Nelson and so forth be described by Allen's great-grandfather as "marks"? The use of the word *marks* here is quite revealing and suggests unknown or unintelligible symbols (i.e., ancient hieratic quarry marks) having been repainted (and new ones painted). It is unlikely in the extreme that Brewer would have described the painting of any well-known British heroes' names as "some marks." These were obviously *names* Brewer would have been wholly familiar with, written in English he could read—not some obscure, unintelligible marks.

And why, in any case, would Brewer have taken exception to the dedication of the chambers to Wellington and Nelson, the two heroes of Britain's wars against Napoleon? As an Englishman it is highly unlikely indeed that Brewer would have objected to the chambers being dedicated to two of Britain's national heroes, but one can certainly understand that a principled young man could very well have made a serious objection to placing *new* marks, *fake* hieratic marks inside the Great Pyramid, and he

surely would have made his feelings on this known to Raven and Hill—and, it seems, to Vyse himself.

It rather seems that the simpler and more likely scenario here is that Raven and Hill used red ochre paint to repaint some marks (i.e., original quarry marks) that were "faint" but used the same red paint to place *new* marks (i.e., fake hieratic quarry marks such as gang names that included the king's various names, etc.) inside the relieving chambers. The implication is that at least *some* of the marks found within these chambers were indeed original marks, and, as we saw earlier in chapter 6, this is confirmed by some of Vyse's private journal entries where he states that when first entering Wellington's Chamber red-painted marks (that looked "nothing like hieroglyphics") were found on the east wall near the entrance.

The problem we have today is determining which marks are original and which were placed in the various chambers by Vyse and his team to perpetrate a hoax. At the end of the day, the mere fact of Vyse instructing names to be painted into various chambers brings *all* the painted marks into question. This is especially so given someone of the questionable moral character of Vyse being in charge of proceedings. This is to say that it cannot be denied that it remains entirely possible that the dispute between Brewer, Hill, and Raven concerned the painting of hieratic marks into the chambers as opposed to the names of Wellington, Nelson, and so forth, as some skeptics insist. And because that possibility cannot be discounted it must surely require us to revisit the entire question of these inscriptions, to perform tests, and to try to uncover scientific evidence to determine exactly what was done in these chambers by Vyse and his aides. We will consider such scientific evidence later in this book.

CHAPTER SEVEN SUMMARY

- It appears that there was a witness to Vyse's Great Pyramid fraud. In his book *Journeys to the Mythical Past,* Zecharia Sitchin presented a copy of a page from the radio logbook of Walter Allen from Pittsburgh, Pennsylvania. Allen wrote this entry into his logbook in 1954 while investigating his family's roots. He was told by some family elders that his great-grandfather Humphries Brewer worked with Vyse at Giza and

that during his time there Brewer had a dispute with two of Vyse's assistants, Raven and Hill, about painted marks in the pyramid. Allen wrote in his logbook, "Faint marks were repainted, some were new."

- Critics, including authors Ian Lawton and Chris Ogilvie-Herald, question the authenticity of Allen's logbook account.
- In-depth analysis of the historical and geopolitical content of Allen's logbook entry suggests that the account is likely to be a genuine record of the events of 1837.
- Allen's account contradicts that of Sitchin, pointing the finger of blame at Vyse's assistants Henry Raven and J. R. Hill rather than Hill and John Shea Perring (as proposed by Zecharia Sitchin). This is highly peculiar, because there is no indication anywhere in Vyse's published account of Raven ever having drawn or painted any quarry marks; his input was seemingly limited only to witnessing (along with some others) some of the facsimile drawings made by Hill.
- It has been proposed that the painting being done by Raven and Hill was nothing more than the painting of names of people to whom Vyse had dedicated each of the chambers. This seems unlikely as these painted names could hardly have become faint so quickly that they required to be repainted. Nor is it likely that the names of British heroes such as Wellington and Nelson would be described by Allen's great-grandfather as "faint marks." The use of the word *marks* suggests unintelligible signs; that is, signs of hieratic script.

8

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EXHIBIT 4

MYSTERY MARKS MADE IN SITU

As stated in previous chapters, Vyse and his team discovered and opened a series of four hitherto unknown chambers above Davison's Chamber within the Great Pyramid. All of these chambers were found to contain red-painted marks of some description, although some chambers had many more painted marks than others. The top two chambers opened by Vyse (Lady Arbuthnot's and Campbell's) had many more marks than the lower two chambers (Wellington's and Nelson's). The very lowest of these chambers, discovered some years earlier by Nathaniel Davison, has (thus far) failed to yield a single painted quarry mark.

One of the aspects of these marks we often find repeated in orthodox literature is that the quarry marks were placed on the blocks as they were being hewn out of the quarries and transported by the various work gangs—hence the name "quarry marks." This is why, we are told, the strings of script in the various chambers take on all manner of orientation, with some marks being perfectly upright (as viewed from a standing position in the chambers) and others entirely upside-down, while others are presented sideways (i.e., rotated 90° or 270°).

This somewhat jumbled array of marks is, of course, to be entirely expected, because the builders were not in the least concerned with properly presenting the gang names or other graffiti within the chambers; their priority was to place the blocks in the most convenient and efficient manner possible. Sometimes that would mean the marks would end up facing into the chambers, sometimes not. The overriding priority of the builders would also mean that, of those blocks with quarry marks that *did* end up facing

into the chambers, these marks would take on whatever orientation was decided by the builders, whose main responsibility was simply finding the best means to place those particular blocks.

In essence then, it is the considered view of mainstream Egyptology that the quarry marks were painted onto the blocks some time before reaching the pyramid; few, if any, of the marks, it is believed, were actually painted onto the blocks after they were set in place within the pyramid. It is fair to say that if any of the marks had been painted onto in situ blocks (i.e., when the block was set in its final position at the pyramid), then those marks would, almost certainly, be presented upright (relative to an observer standing or crouching in the chamber) and would, most likely, have extended over one or more of the in situ blocks.

Work gang names painted onto the blocks at the quarries, however, would unlikely span more than one block (because these marks were each gang's specific identity denoting "ownership" of a particular block). As such, any hoaxer wishing to give the illusion that the block marks were genuine would have to make it appear that the marks were painted onto the blocks at the quarries and *not* in situ. Because any mark painted onto a block in situ would most likely be presented the correct way up, then by presenting the marks on the blocks with a jumble of orientations and making sure that none of the gang names spanned more than one block, an illusion is created that the marks were not painted in situ, ergo must have been painted onto the blocks *before* installation (at the quarries) and thus *must* be genuine. Thinking of this another way—if *all* these marks had been painted onto the roof and wall blocks with the same *right-way up* orientation, then it becomes much easier to argue that the marks were painted in situ and *not* at the quarries, and, as such, it becomes much more difficult to assert an Old Kingdom provenance for them. This is to say that the jumbled orientations of the block marks could be nothing more than a clever but necessary ruse to convince the unwary observer that the block marks are authentic Old Kingdom graffiti.

Thus, what we find in the chambers is that strings of hieratic script are painted onto the blocks with various orientations and are confined to one block and one block only. Some of the marks, as might be expected, appear to be cut short or disappear behind a floor joint where the remainder of the marks cannot actually be observed. We will never know if such marks

actually do continue behind these tight-fitting joints without knocking away a chunk of the stone—an intrusive and destructive process the Egyptian authorities are not ever likely to sanction. We simply have to take the Egyptologists at their word that the remainders of the partial marks that we can observe really do continue beyond the tight-fitting blocks.

MARKS MADE TO MEASURE

But there are some oddities to be observed here, peculiar anomalies in the presentation of the jumbled array of the painted marks found in these chambers; anomalies which may point to fraudulent activity.

In figure 8.1, we can immediately observe that the hieratic signs from Campbell's Chamber forming the quarry marks labeled "A" to "E" on the wall of this chamber are of different sizes. The signs that form quarry marks "A" are considerably smaller than those that form the marks labeled "C," which are themselves smaller than those signs labeled "D" and "E."

Upon closer inspection we observe that the available space between the granite floor blocks and the top of each wall block is also different for marks labeled "A" to "E." Here we see that the available gap for the quarry marks on the wall block (at position "A") is considerably less than the gaps available for the marks labeled "C," "D," and "E." In other words, the characters written into gap "A" have to be smaller than those written into gaps "C" to "E" simply because there is much less available space in gap "A" for the painter of these marks to work with.

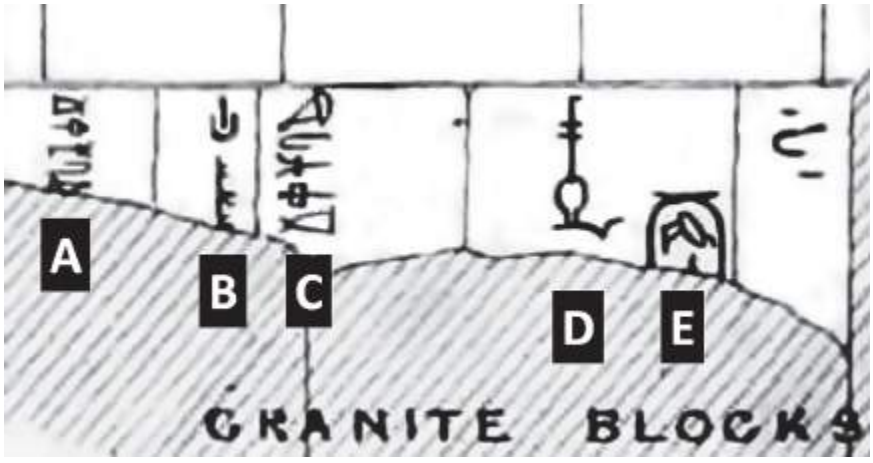

Fig. 8.1. Quarry marks in a section of Campbell's Chamber (north wall)

This sizing of the signs to neatly fit into the available gap between the floor block and the top of the wall block appears indicative of someone who has written these marks in situ, ensuring that the characters labeled "A" fit snugly into the available gap, and when given a slightly bigger gap to work with (i.e., at "C," "D," and "E"), the glyphs become ever more expansive to better utilize the greater space.

MISSING PARTS

If we now consider the glyphs in figure 8.1 "C," we can see that these make up the partial gang name "The gang, the White Crown of Khnum-Khuf is powerful." However, the cartouche element of this gang name is not present on this block, and, in consideration of the ancient Egyptian writing convention known as "honorific transposition," the only positions the cartouche could be presented on this block are either immediately above or immediately to the left of this partial gang name (as observed). Given that this block would have been cut to this specific height at the quarry (in order to accomodate the inclined roof block directly above), then there is simply no space above the existing text ("C") to place the cartouche. Nor is it likely that the block would have been cut shorter at the side (thus removing the cartouche element). This is to say that whoever painted this part of the gang name onto this block did so in such a way as to make it *impossible* to properly position the cartouche element of this gang name. In short, it appears that this partial gang name has been painted onto this block by someone who was entirely unfamiliar with the ancient Egyptian rule of honorific transposition.

It is possible, however, that the obscure marks labeled "B" (fig. 8.1) may be the remnant of the missing cartouche from this partial gang name, and this is certainly suggested by the drawing of Egyptologist Alan Rowe (fig. 8.2). [1]

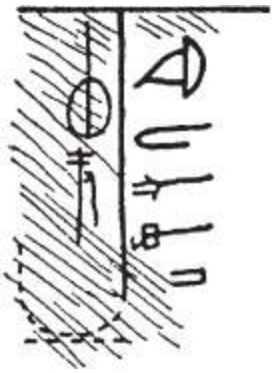

Fig. 8.2. The missing cartouche of the partial gang name labeled "C" may be to the left as indicated by the dotted outline. (Image: Alan Rowe)

However, given Perring's plan survey drawing of this section of wall in Campbell's Chamber then the possible cartouche element of this gang name (as presented by Rowe) has been painted onto a *separate adjacent wall block,* and, as such, we then have an example—the *only* example—of a gang name that has been written across *two* adjacent wall blocks and thus presents a clear sign of fakery, because the quarry gangs would simply *never* have done this; they would have placed their full gang name on *both* of the individual stone blocks they had quarried. Indeed, that the possible cartouche element here is so obscure may, in fact, be the result of the forger realizing this mistake and attempting to "correct" it by erasing the cartouche element on the second block, ensuring it was unrecognizable. But the positioning of the partial gang name (fig. 8.1 "C*"*) fails to take into account ancient Egyptian writing convention and, as such, exposes this attempt at deception.

A similar situation arises with the quarry marks labeled "E" (fig. 8.1). This partial Khufu cartouche is part of the gang name "The gang, Companions of Khufu." Given the particular orientation of these marks and in consideration of ancient Egyptian writing convention, then the remainder of this gang name—given its clear absence from *above* the partial cartouche —can *only* be placed to the left of the partial cartouche (as per fig. 8.1 "D"). However, the marks labeled "D" in Perring's plan drawing do not show any other signs that are clearly identifiable as belonging to this particular gang name; a rather glaring omission.

Fig. 8.3. One of the missing gang name signs is presented below the partial cartouche. (Image: Alan Rowe)

It should be said, however, that another drawing by Rowe of this partial cartouche, labeled "E" in figure 8.1, *does* present what *may* be one of the missing gang name signs (the *apr* determinative sign for "gang") [2] to the left of (i.e., below) the partial Khufu cartouche (fig. 8.3).

However, without an actual photograph of these particular marks, it is impossible to be certain as to who has made the most accurate drawing of them—Perring or Rowe?

NOT SO IMPOSSIBLE MARKS

It has been noted by a number of researchers over the years that a number of quarry marks can be observed between the immovable blocks of these chambers where the gap between the blocks is so narrow (about one inch or so) that no fraudster could possibly ever get a brush into let alone draw anything meaningful. This fact is held up by Egyptologists to assert the authenticity of *all* the painted marks in these chambers (ignoring the obvious fact that all of the king's names are painted onto blocks in easily accessible places). Indeed, as a result of this realization, international bestselling author Graham Hancock, having been permitted by Zahi Hawass to examine the painted marks in these chambers, issued the following position statement.

> I have changed my views on the validity of the forgery theory [of Sitchin]. The relieving chambers are strictly off-limits to the public and are extremely difficult to gain access to. I had been unable to obtain permission to visit them prior to the publication of *Keeper/Message* in 1996. However in December 1997, Zahi

> Hawass allowed me to spend an entire day exploring these chambers. There were no restrictions on where I looked, and I had ample time to examine the hieroglyphs closely, under powerful lights. Cracks in some of the joints reveal hieroglyphs set far back into the masonry. No "forger" could possibly have reached in there after the blocks had been set in place—blocks, I should add, that weigh tens of tons each and that are immovably interlinked with one another. The only reasonable conclusion is the one which orthodox Egyptologists have already long held—namely that the hieroglyphs are genuine Old Kingdom graffiti and that they were daubed on the blocks before construction began. [3]

This position statement was followed in 2011 by the following qualified retraction.

> In *Fingerprints* I supported the Vyse forgery theory. Later when I got into the relieving chambers myself and saw that some quarry marks disappear far back into the gaps between the blocks I felt that I must be wrong to support the forgery theory—because no one could have gotten a brush into those gaps to carry out the forgery. Therefore the quarry marks must be genuine and must have been put on the blocks before they were put into place in the chamber. Accordingly I retracted the position I had taken in *Fingerprints.*
>
> It's possible I threw the baby out with the bathwater with that retraction. Unlike the unforgeable quarry marks positioned between the blocks, the Khufu cartouche is in plain view and could easily have been forged by Vyse.
>
> I do not insist it was, I just accept that it could have been, and that some interesting doubts have been raised over its authenticity. I await further evidence one way or the other. [4]

In a subsequent communication with Hancock, I presented him (in a private e-mail) with the following question: "When you say there are

‘quarry marks’ in the tight gaps between the blocks, are you meaning these are ‘mason’s markings’ or are they actual hieroglyphic markings? If, hieroglyphs, are you aware if any of them say ‘Khufu’”?

Hancock responded to my question as follows: “It’s a long time ago now, but I [am] 100 per cent certain that none say ‘Khufu.’ Nor are they lines/registers of hieroglyphs. They are simple, isolated and (though I am no expert in these things) look like typical quarry marks to me.”

Hancock concedes that he is “no expert” in such matters but that the markings in these tight gaps between the blocks, in his experience, appeared more like “typical quarry marks,” and there were no cartouches that he could see in any of the cracks between the blocks. This, of course, needs to be confirmed, but it appears to be the case that the full and partial Suphis/Khufu cartouches inscribed in Campbell’s Chamber appear only in open and easily accessible places—the partial example on a wall block and the complete example on a roof block.

But even if it transpires that there is some Old Kingdom hieratic script (rather than mason’s building symbols or some other unrecognizable marks) in the tight gaps between the immovable blocks in these chambers, it remains entirely possible that even these marks in such inaccessible places could still have been forged; yes, there is indeed a means by which even this seemingly impossible feat could have been achieved—and relatively easily too.

Independent pyramid researcher Dennis Payne informs us that what is required in this instance is not any kind of painter’s brush but rather some string and two sheets of stiff card or thin board. The string (forming the shapes of the required quarry marks) is fixed with an adhesive to one of the thin boards and is then painted over with red ochre paint (which was still being made and was available in 1837). This board with its freshly painted string signs (i.e., hieratic quarry marks) is slid into the narrow gap between two adjacent blocks. Having done this, a second thin board is then slid in behind the first board, thus jamming and impressing the painted string “quarry marks” from the first board onto the face of the stone block within the tight gap. This impression having been completed, the second board is then removed, followed by the first board. The fake quarry marks are now presented deep within a seemingly impossible place—a tight gap between immovable blocks where no forger could possibly get a paintbrush. So,

once again, what was once held by Egyptologists to be an impossible task is shown to be not so impossible after all.

MARKS PAINTED IN SITU

But if these marks were indeed painted in situ, as a close analysis of the available evidence seems to suggest, then how likely is it that an ancient Egyptian scribe, standing on the granite floor of the chamber with the wall or roof block in front of him, would have squeezed these marks sideways (or upside-down) into tight gaps on single stone blocks when, theoretically, the entire horizontal block or even the entire chamber wall would have been available to him on which to daub his graffiti?

Or is the simpler answer to this conundrum that someone else painted these marks sideways onto these blocks simply to make it *appear* as though they had *not* been written in situ, ergo they must have been painted at the quarries; that is, before the blocks were set in place, ergo we are obliged to conclude that they must be genuine Old Kingdom marks? This may indeed be what the forger wishes us to believe from the haphazard arrangement of these painted marks, but the telltale clues that these marks were painted in situ are there for anyone to see.

Take this other example, this time from Lady Arbuthnot's Chamber (fig. 8.4). Notice how the lower set of characters (image 2) follows the contours of a relatively level granite floor block, and note also how these marks fit perfectly into the available space between the top of the wall block and the granite floor block. Now consider the upper set of characters (image 1); notice how these characters follow the contour of the sloping granite floor block.

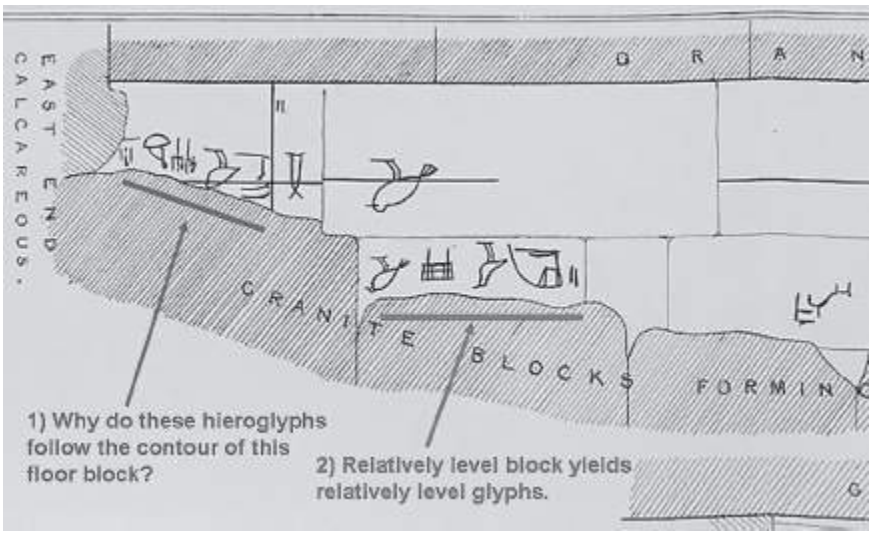

Fig. 8.4. Quarry marks in section of Lady Arbuthnot's Chamber (east wall)

Once again we are confronted with evidence of quarry marks that appear to have been painted onto blocks in situ. And we have to ask again, If these were indeed painted in situ, as seems to be the case, then why on earth would the painter, standing on the granite floor of the chamber, paint these marks upside-down or sideways onto a single block when he would have had the entire wall of the chamber on which to paint the marks the correct way up?

Our final example again comes from Lady Arbuthnot's Chamber (fig. 8.5). Notice how the quarry marks indicated by the arrows appear to follow the contours of the granite floor blocks. Once again we observe what appears to be evidence of marks that have been written in situ, and once again, if that is the case, we have to ask, Why would an ancient Egyptian scribe paint these marks on the wall upside-down (or sideways), and why would he constrain each set of marks to a single block?

And why, we must also ask, are there just a handful of inscriptions that are oriented upright (relative to a standing position)? A quick analysis of the stones in the various chambers shows that, of some forty stone blocks (each with four possible orientations), only three blocks present marks with an upright orientation when, from a purely statistical perspective, one might reasonably have expected 25 percent (ten blocks or thereabouts) to present upright marks. Why are the vast majority of the painted marks on these stones set at 90°, 180° or 270°? Has someone been overegging the pudding, trying too hard to make a convincing illusion?

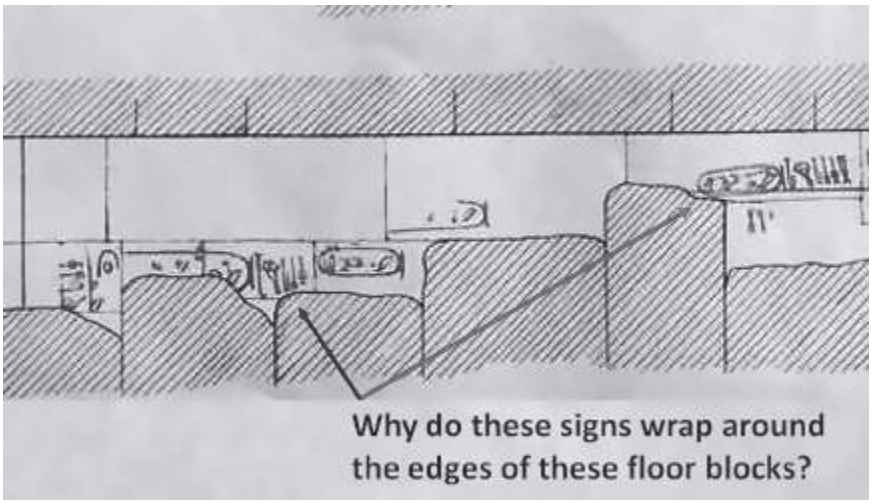

Fig. 8.5. Quarry marks in section of Lady Arbuthnot's Chamber (north wall)

In whatever chamber we care to scrutinize, we are confronted time and time again by a number of anomalies that present significant contradictions and challenges to the conventional narrative of the marks found in these chambers as related to us from the account of Vyse. The simplest explanation for this may be that the marks were oriented in this haphazard manner to make it *appear* as though they were painted onto the blocks at the quarries, with the implication, thereof, that they must be genuine marks. We will revisit this question of blocks being painted in situ in chapters 9 and 11, with some further, more damning evidence.

A MYSTERY SIGN

Within the chambers opened by Vyse and his team, a specific series of hieratic signs were said to have been found (fig. 8.6). Ann Macy Roth and others believe a mystery sign in this series (highlighted in the dashed box, fig. 8.6) may be an early hieratic sign for the sail hieroglyph. However, given that the ancient Egyptian sail glyph had not evolved into a hieratic form that sufficiently (though not exactly) resembled this mystery sign until much later in the Old Kingdom [5] (hundreds of years after the Great Pyramid was built and the upper relieving chambers sealed), other Egyptologists contend that this mystery sign cannot be the sail glyph, and some consider that it may, instead, be a poorly rendered hand-drill sign (fig. 8.7).

Fig. 8.6. This series of hieroglyphs reads "The gang, the White Crown [of Khnum-Khuf] is powerful." The sign in the dashed box is not fully understood by Egyptologists and, to this day, remains something of a mystery.

Of course, if Egyptologists are correct in their belief that this mystery sign is but a poorly rendered drill sign, then the obvious question arises as to why the painter of this sign failed to write it correctly on the blocks at the quarries. After all, one must assume that the ancient Egyptian scribe responsible for marking the quarried blocks with the appropriate gang name would at least have known how to write the name properly, even if crudely with red ochre paint.

Why then has this sign in this gang name been so poorly rendered (i.e., the bottom part of the drill sign is entirely missing), and more to the point, why has this "mistake" been replicated on no less than *eight* different occasions within the relieving chambers?

It is perhaps understandable that the drill sign on the occasional block here or there might have been scuffed and damaged in transport, thereby losing the bottom part of the sign, but is it reasonable to suspect that such a thing occurred on *eight* different occasions, lobbing off the same bottom part of the drill glyph each and every time? And we also have to ask: Is it reasonable to expect that an ancient Egyptian scribe would repeat such a mistake eight times? Is this really the work of an ancient Egyptian scribe, who would surely have understood how to write his own language?

Fig. 8.7. The ancient Egyptian hand-drill hieroglyph

It is, of course, entirely possible that Egyptologists have not, as yet, correctly identified this particular sign and that it is not, as some believe, a poorly rendered drill (or sail) sign at all but some other sign altogether. As yet, however, Egyptology remains divided on other possibilities for this sign. But there is another possibility that might explain this anomaly, one that is entirely consistent with the evidence.

Might this disputed sign in this gang name perhaps be the work of someone else, someone much more recent who had very little knowledge of ancient Egyptian writing, who perhaps found *one* poorly preserved version of this gang name and, in his ignorance, assumed the sign had been correctly drawn by the original ancient Egyptian scribe, then simply replicated the sign, fault and all, eight times throughout these chambers? If the mystery sign never actually existed as a sign in its own right in ancient Egypt but came about only through a fraudster's "mistake," might this perhaps explain why modern Egyptologists struggle to definitively identify this sign? And, of course, it stands to reason that if this sign (and gang name) has been faked eight times in these chambers, then any accompanying cartouche of Khnum-Khuf from this gang name is most likely to have also been faked.

CHAPTER EIGHT SUMMARY

- Because of the jumbled arrangement of signs on the blocks within the various relieving chambers of the Great Pyramid, it is the view of mainstream Egyptology that the signs were painted outside the chambers; that is, at the stone quarries (hence the name "quarry marks").
- In Campbell's Chamber strings of signs have been painted onto the blocks and sized appropriately to fit precisely into the available space between the granite floor and the top of the wall blocks. As the available space between the floor block and the top of the wall block increased, the additional space was utilized to paint larger signs. This is indicative of in-situ painting.
- In Lady Arbuthnot's Chamber signs can be observed on the east and north walls, following the contours of the granite floor blocks, thereby indicating in-situ painting.
- It is unlikely that authentic in-situ marks would have been restricted to a single block or that they would have been painted with any orientation other than upright. That the quarry marks have been presented in a jumbled manner may have been contrived to convince the casual observer that the marks had been painted outside the chamber—that is, at the quarries—and, as such, that they must therefore be contemporary with the pyramid.
- Statistically speaking, we should expect to see many more blocks with signs with an upright orientation than are actually present throughout the various chambers.
- A sign within the White Crown gang name, believed by some Egyptologists to be a sail or drill, has been drawn incorrectly no less than *eight* times throughout the chambers. It seems unlikely that an ancient Egyptian scribe would draw a sign incorrectly eight times. More likely is that one badly preserved or scuffed sign has been copied eight times, thus replicating the "misprint" throughout the chambers and may explain why Egyptologists struggle to definitively identify this mystery sign.

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EXHIBIT 5

A PECULIAR DISTRIBUTION

In the previous chapter we learned that the distribution of the painted marks throughout the various upper chambers of the Great Pyramid seemed a somewhat haphazard affair, noting that not a single quarry mark has ever been discovered by anyone in Davison's Chamber, the lowest of the relieving chambers; a few marks were found in the next two chambers, Wellington's and Nelson's; while the final two chambers, Lady Arbuthnot's and Campbell's, presented, by some considerable way, the most painted marks.

If we now consider the theory of Ann Macy Roth, we realize that this is a most unusual situation indeed. This is, Roth proposes, because specific work gangs were responsible for the construction of particular sides of the pyramid and, by extension, specific walls of the internal chambers, including Davison's Chamber and the four chambers blasted open by Vyse. Simplistically speaking, Roth suggests that the builders' gang names would be confined to specific walls (mainly the north and south wall but also, to a lesser extent, the east and west wall) and that these gang names would only ever be found at the cardinal direction for which a particular gang was responsible for constructing. Roth further suggests that this system of working would essentially be the same and hold true for the walls of the Great Pyramid's internal relieving chambers; specific gang names (along with their particular version of the king's name) would only ever be associated with a particular side of the pyramid and the walls of its internal chambers.

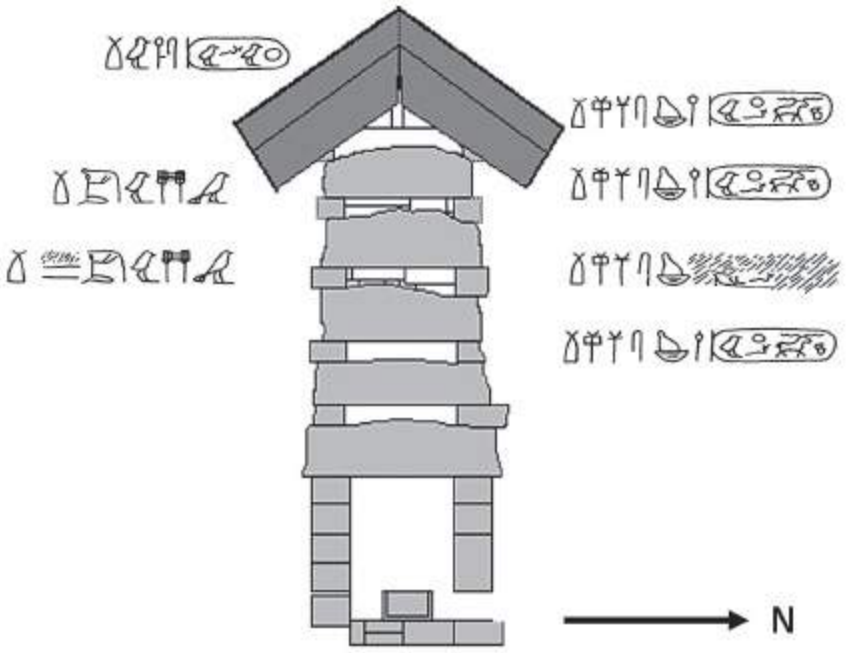

Fig. 9.1. Distribution of gang names in relieving chambers of the Great Pyramid (Image: Scott Creighton, based on original drawing by Ann Macy Roth)

In her book *Egyptian Phyles in the Old Kingdom: The Evolution of a System of Social Organization,* Roth presents a diagram similar to the one in figure 9.1. As can be seen from Roth's distribution there are no marks at all in the lowest chamber (Davison's). It seems from her chart that all the northern walls of the relieving chambers (except Davison's) are somewhere inscribed with the same gang name, "The gang, the White Crown of Khnum-Khuf is powerful." The southern walls, by contrast, are inscribed only in the top three chambers, but with two different gang names.

Roth explains:

> In the following reign of Khufu, the gang seems to have been the most important unit of organization. The texts inscribed on the side walls of the relieving chambers of the Great Pyramid name three gangs, each based on a different form of the king's name. Seven blocks give a gang name based on his Horus name, *Hr-Mddw* [Hor Medjedu]; ten give a name based on the full form of his *nswt-bjtj* name, Khnum-Khufu; and two blocks give a name based on the abbreviated form of that name, Khufu. . . .

> The distribution of the gang names on the walls of the relieving chambers is an interesting foreshadowing of later developments. In each chamber the blocks of the north side are marked with one gang name and those of the south side with another, while the end walls [west and east] are divided in half and the blocks are marked with the name of the gang whose name is on the nearest side wall. [1]

From a cursory examination of Roth's diagram and her commentary that goes with it, it would seem to be the case that this practice was employed in the construction of the Great Pyramid and its internal chambers. And it follows that if this were indeed the case, then it is unlikely that Vyse or his assistants would have been aware of such a practice in order to replicate it—so the orthodox argument goes. Thus, it is inferred, the painted marks in these chambers must therefore be genuine.

However, if we dig a little deeper into Roth's hypothesis with specific regard to the gang names on the various walls of these chambers, things do not appear to be as neat and certain as her diagram suggests. The first thing to say here is that by simple statistical probability we should expect to have found some similar marks in the lowest chamber (Davison's). Also, we should expect to find a similar frequency of marks; this is to say that we should expect to find a more even distribution of the various gang names throughout the chambers. But we simply don't find any of this. What we find in reality is this:

1. Davison's Chamber: No marks of any kind on any of the walls.
2. Wellington's Chamber: Gang name (White Crown gang) on the west wall only. Partial Khnum-Khuf cartouche (presumably also of the White Crown gang) on the east wall.
3. Nelson's Chamber: Two different gang names (White Crown gang and Pure Ones of the Hor Medjedu gang), both on the west wall only.
4. Lady Arbuthnot's Chamber: Two different gang names (White Crown gang and Pure Ones of the Hor Medjedu gang) on the south wall. Two different gang names on the west wall (Pure Ones of the Hor Medjedu

gang and the White Crown gang). Five occurrences of the same gang name (White Crown gang) on the north wall.

5. Campbell's Chamber: Two occurrences of the same gang name (Friends/Companions of Khufu) on the south roof gable. Two occurrences of the same gang name (White Crown gang) on the north wall.

Some other points to note relating to the distribution of these gang names include:

1. Other than some peculiar marks on the east wall of Wellington's Chamber (mentioned in chapter 6) and with the exception of a couple of small partial markings on the east wall of Campbell's Chamber, there are no marks of any kind on the east wall of any other chamber and certainly no gang names.
2. Almost twice as many of these chamber walls are without gang names as those with gang names.
3. Most gang names are concentrated in Lady Arbuthnot's chamber.
4. Across all the relieving chambers, the south walls bear three different gang names.
5. Two chambers (Nelson's and Lady Arbuthnot's) have two different gang names on the same cardinal side.
6. Campbell's chamber may have a partial Friends/Companions of Khufu gang name on the north wall along with the White Crown gang name.
7. Across all the chambers, the White Crown gang name (full or partial) is found on a wall in every cardinal direction: a north wall (Campbell's); a north, south, and west wall (Lady Arbuthnot's); and an east and west wall (Wellington's).

In support of her theory, Roth cites the distribution of some gang names found upon stones of the mortuary temple complex of Menkaure as supporting evidence of this theorized practice. But it has to be said, if Roth was able to make such an observation at Menkaure's mortuary temple and come to such a conclusion, then surely Vyse, who also excavated this

complex during his Giza operations, could have noticed it as well and made note of this distribution and simply replicated the (theorized) practice within the Great Pyramid's upper chambers.

But, as shown above, it is highly doubtful that such a practice even existed, because, far from being the relatively straightforward, neat distribution Roth's diagram suggests, if anything, the distribution pattern of the gang names we find within the relieving chambers is so apparently random that it appears to be the work of someone who clearly didn't know of, or understand, this theorized practice of ancient Egyptian pyramid building.

FURTHER DISTRIBUTION ANOMALIES

Photographic images of the various relieving chambers are very few and far between, with the vast bulk of images in the public domain having come from Campbell's Chamber, which bears the famous Khufu cartouche. However, recent television documentaries have appeared featuring the likes of Zahi Hawass in the other lower chambers, discussing their features with archaeological students and TV reporters. What has become apparent from these documentaries is the fact that the walls of the lower chambers (mainly Wellington's and Nelson's) are caked in lime slurry, the once-liquid mixture seen running down the various walls of these chambers. This spillage down the face of the wall blocks would have occurred when the builders were sliding the roofing blocks of the chambers into place, using the slurry (a mixture of lime and water) as a lubricant to help reduce friction between the blocks.

The curious thing to observe here is that in those chambers where the most lime slurry is observed on the walls (Wellington's and Nelson's), we find the fewest painted marks, and in those chambers that present the least amount of wall slurry (Lady Arbuthnot's and Campbell's), we find the most painted marks inscribed on the walls. And stranger still, we find that there is not a single report—historical or otherwise—that notes any quarry marks (or even partial quarry marks) under this wall slurry. This is particularly odd as we have reports from the pioneering Egyptologist Sir William Flinders Petrie of black-and-red leveling lines drawn by the masons on these walls that apparently go under and over the wall slurry, but, strangely, the painted

“quarry marks” all manage to avoid being covered by any of these long runnels of wall slurry. If these marks were truly painted onto these blocks at the quarries, then, surely, we should observe at least some marks, or even partial marks, peeking out from beneath the long runnels of slurry that can be observed running down the walls in these chambers.

It almost seems as though someone has deliberately avoided presenting any quarry marks on the walls where there is a lot of slurry and concentrated his effort on those walls where there is much less slurry (e.g., Lady Arbuthnot’s Chamber). If these painted marks truly are genuine then this is a very unnatural state of affairs and a distribution that we would not normally expect to find. However, from the perspective of a hoax then such a peculiar distribution becomes perfectly understandable.

If a forger wished to make these marks appear original (i.e., that they were painted onto the blocks at the quarries), then painting the marks on top of the dried slurry would serve only to undermine such a deception, because it would then be abundantly clear that the marks could only have been placed onto the blocks in situ (i.e., after the slurry had dried). So from a potential forger’s point of view, painting glyphs on top of the dried slurry would have had to be avoided at all costs.

Another observation that also seems to run contrary to Roth’s hypothesis is the fact that we find that not a single quarry mark has been reported to have been found on any of the granite *ceiling* or *floor* blocks of these chambers—a most curious situation as these blocks present two observable faces (the topside and underside) instead of one observable surface like the wall and inclined roof blocks present. The quarry workers at the Giza and Tura quarries apparently placed quarry marks on their quarried blocks, but it seems that only the quarry workers much farther away at Aswan, where the granite blocks of Campbell’s Chamber were quarried, did not do likewise.

Of course, from a potential forger’s point of view, this makes perfect sense even if, ultimately, it presents a glaring anomaly. As stated previously, the key objective of the forger is to make the marks appear genuine. To do this the forger paints many of these marks onto the wall blocks sideways or upside-down. Because it is reasonable to assume that anyone sitting within the chamber painting marks onto the blocks in situ would have drawn them the right way up, it then follows that finding the marks in a variety of

orientations naturally suggests that the marks were placed onto the blocks at the quarry (right way up), but by the time the blocks reached the pyramid they had been turned to different orientations to best fit them into place within the structure. Thus, if it is logically deduced that the marks were painted onto the block at the quarry, then, logically, they must surely be genuine Old Kingdom hieratic markings. So the orthodox reasoning goes. It is the haphazard orientations of the wall marks that enable the Egyptologists to logically deduce such a conclusion.

By contrast, however, the accessible surfaces of ceiling or floor blocks present flat planes—they have cardinal directions but have no up or down, and, as such, it is not possible to have any marks on the underside (ceiling) or topside (floor) in an upright or upside-down manner, and, as such, no logical conclusion about the provenance could be deduced from marks on such flat surfaces. It is perhaps for this reason that any forger naturally would have concentrated on placing his fake marks on the chamber's vertical walls and inclined roof blocks, for only these planes permit us to determine orientation (relative to the chamber) and to then make a deduction about their provenance (i.e., that the marks were made not in situ but at the quarries). But neglecting to place at least some marks on the surfaces of the ceiling or floor blocks serves only to undermine the overall effect, for surely if this was a normal practice of the quarry gangs of this period then we should expect to have found at least some marks, partial or otherwise, on the two visible surfaces of these granite ceiling/floor blocks.

CHAPTER NINE SUMMARY

- It is theorized that specific gangs were responsible for the construction of specific sides of the pyramids and also their internal chambers. As such it is theorized that gang names would be confined to particular chamber walls and only those walls. It is asserted that any forger in 1837 would have been totally unaware of such a theorized practice in order to replicate it.
- A close analysis of the distribution of quarry gang names throughout the various upper pyramid chambers does not appear to support this

theory; the gang name distribution, rather than conforming to such a theorized practice, appears much more random and haphazard.

- Chambers with the greatest amount of visible lime slurry on the walls present the fewest number of painted marks, while the chambers with the least amount of visible slurry present the most painted marks on the walls.
- While red and black painted mason's leveling lines are seen to run under and over wall slurry, there are no reports of any quarry marks, partial or otherwise, under the runnels of lime slurry.
- While many painted marks have been found on the chamber walls and gabled roof blocks (from the Giza and Tura quarries), no reports have been made of any "quarry marks" having been found on any of the numerous granite floor/ceiling blocks from the more distant Aswan quarries.

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EXHIBIT 6

THE LIE OF THE LANDSCAPES

Our next piece of evidence comes from something that is so obvious that no one actually notices it, or if they do, they consider it to be of little relevance. It may seem like a fastidious point to raise, but the orientation of all three instances of the Khufu cartouche copied from Campbell's Chamber that we find in Vyse's private journal are, oddly, oriented *hori zontally.* Why should this be when the actual gang name with its Khufu cartouche (fig. 1.9) is painted *vertically/sideways* onto the inclined roof block (i.e., top-to-bottom with the signs rotated at 90° to Vyse's drawings of them in his private journal)? Why didn't Vyse draw the cartouche from this gang name in his private field notes exactly as he would have seen it on the roof block, maintaining its vertical/sideways orientation?

It may seem a trivial point, but when we consider all the other hieroglyphic and hieratic drawings in Vyse's journal, we find that all these other signs are drawn exactly and correctly as he would have observed them: sometimes upright, sometimes upside-down (i.e., rotated 180°), and sometimes sideways (i.e., rotated 90° or 270°). With his body as the frame of reference (i.e., head to top of chamber, feet to bottom of chamber), all these other drawings in his private journal present us with evidence of how Vyse *instinctively* would have drawn the glyphs he observed in the chambers, giving each drawing the correct orientation relative to the axis of his body; in short, Vyse drew in his journal exactly what was in front of him, maintaining the particular orientation of the hieroglyphic and hieratic signs as he stood and copied them.

This practice of maintaining the orientation of a particular piece of text would have been all the more essential as many of the signs we find today in the chambers and drawn by Vyse in his private journal were quite abstract in form, and without considerable knowledge of hieratic script, it would have been impossible for Vyse to know which way up a particular abstract sign should be. As such, it would have been absolutely vital for Vyse to draw the signs exactly as he saw them, capturing the given orientation, which would better enable the experts back in London to determine the true orientation and meaning of the various marks. This is to say that a particular group of abstract signs could potentially be mistranslated if the given orientation of the signs was not properly and consistently recorded. And, of course, it was not Vyse's job to interpret any of the signs, merely to accurately copy them.

We surely have to ask then, given the *other* examples of glyphs in his private journal where the orientation of the marks as they actually appear in the various chambers is maintained, Why then did Vyse decide to draw in his private diary on *three* occasions the Khufu cartouche (ostensibly from Campbell's Chamber) rotated some 90° from how this cartouche actually appears? Are we perhaps detecting a clue as to how Vyse *origi nally* observed the Khufu cartouche and, therefore, why it takes a left-to-right orientation with all the signs drawn perfectly upright in his written journal? Did Vyse originally copy a Khufu cartouche that had been *hori zontally* aligned from some other place? Did Vyse have Raven and Hill copy into Campbell's Chamber a horizontally aligned Suphis/Khufu cartouche that had been found *elsewhere* outside the Great Pyramid and, without fully thinking through the ramifications of the next decision, simply rotated the original horizontal cartouche by 90°; that is placing what had originally been a horizontally aligned cartouche (copied from somewhere outside the pyramid) vertically into the chamber, thereby creating the contradiction with his three horizontal journal entries?

Admittedly, this particular line of questioning may seem somewhat pedantic, but, remarkably, we find that it is a behavioral pattern that is emulated in the facsimile drawings of Vyse's assistant J. R. Hill, and to a quite remarkable degree.

HILL'S ORIENTATIONS

During some unrelated research in 2013, I had been sent copies of three of Hill's facsimile drawings by Patricia Usick, Ph.D., of the British Museum. In studying these drawings I felt there was something odd about them, but at the time I couldn't quite put my finger on what it was. I subsequently contacted Usick again in April 2014, asking if she could send me scanned copies of Hill's other facsimile drawings (twenty-eight in all) so that I could examine them in order to perhaps figure out what it was that was nagging my mind. Unfortunately, Usick explained to me that there were no digital scans or photos of the other Hill facsimiles that she could send. The only way I would be able to examine them would be to arrange an appointment with her, which I duly did.

So, on a beautiful spring day in May 2014, my wife, Louise, and I set off from our home in Glasgow, Scotland, for the British Museum (fig. 10.1), a round trip of a thousand miles or so. We didn't know it at the time, but it was to be a trip filled with a quite unexpected and highly significant discovery.

Fig. 10.1. The British Museum (Image: Scott Creighton)

Fig. 10.2. Students and museum staff at the British Museum (Image: Scott Creighton)

After a couple of false starts searching the museum for Usick's department, we eventually met with her at the museum's information desk, and she led us to the Egyptian and Near East Department's study room (fig. 10.2) via an incredibly tortuous labyrinth through the museum. Indeed, from the information desk it took us a full ten minutes to finally arrive at the study room, having passed through a number of long passageways, expansive hallways, and galleries, through a number of doors, up some stairs, through some other small rooms, down in a service elevator, and finally into the room where Hill's facsimile drawings were at last presented to us.

All around us there were numerous students and museum staff members employed in analyzing and cataloguing all manner of ancient artifacts. Usick led us to the room where Hill's facsimile drawings, filed in a protective binder, had been laid out on a long table. Photography of the material was permitted so long as we did not use a flash.

The elaborately decorated protective folder (fig. 10.3) was about two feet wide by three feet long. A cream-colored panel on the front of the folder detailed the contents therein; it was written in an elaborate, cursive handwriting style and was signed at the bottom "Colonel Howard Vyse" and below this, "1837."

Fig. 10.3. The reverse side of the protective folder containing the Hill facsimiles in the British Museum (Image: Scott Creighton)

When finally we were able to view all twenty-eight of Hill's facsimile drawings, they told their own story and confirmed my suspicions about Vyse's horizontally aligned diary entries of the Khufu cartouche—that the Khufu cartouche drawn by Vyse in his private journal had been copied from an original secret source that had been oriented *horizontally* when Vyse and Hill first found and copied it.

But how was it possible to reach this conclusion from only a brief study of Hill's drawings? The realization began to dawn when Louise picked up one of the facsimiles and was confused as to which way it should be held up in order for me to photograph the facsimile sheet with the correct orientation of the hieroglyphs as they would have appeared to someone standing in the chamber observing and copying them. The hieroglyphs on this particular facsimile drawing were oriented 90° to the signatures of the various witnesses, including Hill's signature (fig. 10.4, below.)

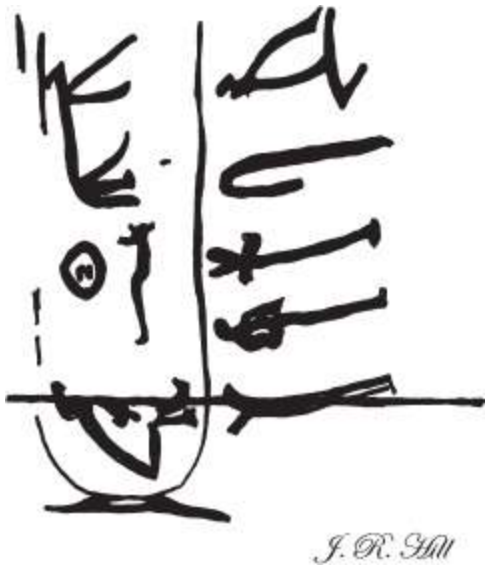

Fig. 10.4. Artist's impression of Hill facsimile showing hieroglyphs oriented 90° to Hill's signature (and other signatures on original). This is how the hieroglyphs appear to an observer standing or crouching in the chamber. The facsimile sheet (and the hieroglyphs thereon) is given the correct orientation by the signature of Hill (and the other signatories). When Hill's signature is the correct way up then the hieroglyphs on the sheet will take on their chamber orientation. (Image: Scott Creighton, based on original drawing by J. R. Hill)

I explained to Louise that many of the hieroglyphs in these chambers of the Great Pyramid were, in fact, painted onto the stone blocks upside-down or sideways. I further explained that Hill's signature, as well as the signatures of the other witnesses found on the facsimile sheets, effectively served as a compass, telling us the proper orientation of the facsimile sheet and thus of the hieroglyphs as they would be observed in the chamber; that is, the witness signatures and attestations should always be the right way up (like the north indicator on a map), thereby rotating the hieroglyphs on the sheet to their actual orientation within the chamber.

So we carried on, carefully photographing each of Hill's facsimile drawings, ensuring that the signatures and attestations on the facsimile sheets were the right way up so that we could photograph the hieroglyphs with the correct chamber orientation. When we had finished our work and were checking the drawings on our laptops against the plan drawings made by Perring, [1] the penny dropped, and I finally realized what had been nagging my mind for the best part of a year.

In Hill's facsimile drawing of the Khufu cartouche that I had seen the year before, it had been signed with the wrong chamber orientation (relative to Hill's signature). This was the same for the other part of this gang name that was drawn by Hill on a separate facsimile sheet. This is to say that, almost without exception, when reading Hill's signature upright on the various facsimile drawings from the relieving chambers, we find that twenty-two of the twenty-four facsimile drawings that we were able to cross-check are correctly oriented with respect to the orientation of the actual quarry marks within the chambers. From a binomial statistical probability perspective, for Hill's signature to correctly lock in the orientation of twenty-two from twenty-four [*2] facsimiles purely by random chance is practically zero. This strongly suggests that Hill had a clear system of using his own signature (and those of other witnesses) as a "this way up" sign to lock in the correct relative orientation of each set of quarry marks that he painted onto each facsimile sheet.

The two incorrect facsimile orientations consisted of the gang name "Companions of Khufu" from Campbell's Chamber and are presented over two sheets, both of which were signed by Hill (the *only* witness) as though he had been copying these particular quarry marks from an original source that had the glyphs oriented *horizontally* (fig. 10.5, below), thereby providing corroboration that this gang name facsimile painted by Hill had come from some other place outside the Great Pyramid where the source had a different orientation (i.e., horizontal) to what we actually find in Campbell's Chamber (i.e., rotated 90°). It seems then that Hill copied these marks from that source and unwittingly and habitually signed the bottom of the landscape facsimile sheet (as most artists do), aligning his signature with, and locking in, the *horizontal* orientation of the original source, just as he used his signature to do so for all the other drawings that he made.

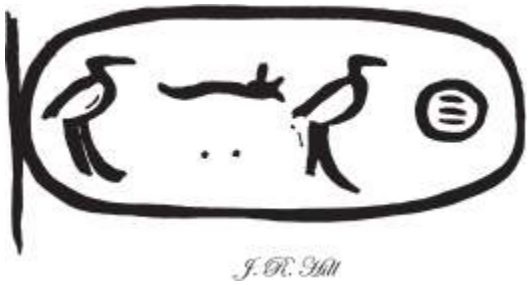

Fig. 10.5. Artist impression of Hill facsimile of Khufu cartouche with (mock) Hill signature in " landscape" (Image: Scott Creighton)

This is to say that, had Hill made this facsimile drawing from the vertically aligned Khufu cartouche that we observe today in Campbell's Chamber, then, by following the signing convention he clearly employed with every other facsimile drawing (that we were able to check) to lock in the chamber orientation of these marks with his signature then he *should* have signed his Khufu facsimile sheet in a position to indicate that he had observed these drawings vertically in Campbell's Chamber, as shown in figure 10.6.

That Hill appears not to have followed his own signing convention with regard to these particular facsimiles strongly suggests that these drawings had originally been copied from some alternative source where Hill *did,* in fact, follow his normal signing convention; he instinctively and habitually signed the drawing as he normally would, at the foot of the horizontal/landscape drawing (fig. 10.5), because that *was* the orientation of the *original* source cartouche. That Hill then, rather stupidly, decided to rotate his already signed landscape drawing 90° to copy it into the Great Pyramid was to be his undoing, as this decision resulted in the very obvious discrepancy that we find today with his signature. Had Hill simply copied this drawing into the chamber horizontally, then his deception would have gone entirely unnoticed.

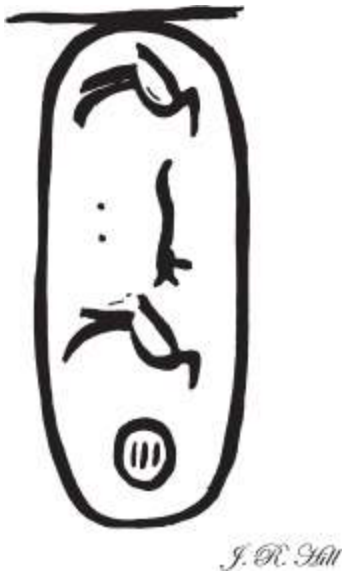

Fig. 10.6. Artist impression of vertically/sideways aligned Khufu cartouche with (mock) Hill signature at bottom right of sheet (Image: Scott Creighton)

It seems somewhat ironic that Hill's signature was placed on his facsimile drawings in order to vouch for the authenticity of the hieroglyphs in these chambers, yet it is his signature that has, in the end, been his undoing as once again the truth of these marks in Campbell's Chamber of the Great Pyramid is laid bare. And it has to be said—if Vyse and his team could fake even a *single* mark in these chambers, then their action taints *all* the marks found in Campbell's Chamber and all the chambers below; this evidence becomes the fruit of the poisonous tree.

CHAPTER TEN SUMMARY

- In Vyse's private journal we find that he draws the Suphis/Khufu cartouche no less than *three* times in a horizontal fashion. This is odd for two reasons: first, the actual cartouche in Campbell's Chamber is aligned vertically, and second, Vyse draws all other cartouches in his diary with their actual orientation; that is, as they would appear to someone standing in the various chambers observing the cartouches. Why then, when he maintains the chamber orientation of other drawings, would Vyse draw the Khufu cartouche in his private journal with a different orientation from how it actually appears in Campbell's Chamber?
- Hill was tasked by Vyse to make facsimile drawings of all the markings found inside the various chambers. Hill made a total of twenty-eight facsimile drawings.
- From an analysis of his drawings, Hill clearly deployed a system of using his signature as a "this way up" sign to lock in the chamber orientation of each facsimile sheet. With his signature (and those of some of the other witnesses) always upright, this would effectively record and lock in the chamber orientation of a particular drawing, allowing us to know exactly how the signs appeared when someone was standing and observing them in a particular chamber; that is, they

would then appear on the facsimile sheet upright, sideways, or even upside-down.

- Of Hill's twenty-eight facsimiles, the orientations of twenty-four were cross-checked with other sources.
- Two drawings did not conform to this convention employed by Hill—drawings of the "Friends of Khufu" gang name from Campbell's Chamber. This may be the smoking gun—that Hill actually copied this gang name with its associated Khufu cartouche from another source where it *had* been orientated horizontally, which is why Hill automatically and instinctively signed the two drawings with that particular orientation.
- When Hill then copied this facsimile image into Campbell's Chamber, it was rotated 90° (to fit onto a single, inclined roof block), thereby creating this inconsistency with his signature.
- Hill's signature, used to testify that each drawing was a true facsimile copy of the original, unwittingly serves to indicate a fraud.

11

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EXHIBIT 7

CARTOUCHE CONTRADICTIONS

Throughout the course of this book we have learned that it is the view of Egyptologists that the painted marks within the hidden chambers of the Great Pyramid were Fourth Dynasty graffiti—crude hieroglyphs painted onto stone blocks by the various work gangs working the stone at the quarries. Egyptologists do not believe that the quarry marks on the blocks within these chambers were made in situ; that is, once the wall and roof blocks had been set in place. However, the evidence thus far presented suggests this to be an erroneous view. In this chapter additional evidence will be presented that further supports the hypothesis that these painted markings were created in situ by nineteenth-century hoaxers.

No fraud is ever perfect, and even the best fraudster will make mistakes, leaving behind subtle clues to their deception—it's an occupational hazard. Often these mistakes will go undetected for many decades and even centuries. In 1837, Vyse and his small team lived in a world without electrical lighting or cameras. There were no robotics or endoscopic devices to scan inaccessible places within the chambers. And there was no internet. In this pre-Victorian world, Vyse could never, in his wildest dreams, have imagined the intense scrutiny that modern technology would bring to bear on the painted marks he claimed to have discovered in these chambers. All of these technological marvels of the modern world have allowed the painted marks on the walls of these chambers to enter the homes of millions all over the world. These chambers are no longer the remote and relatively inaccessible places that they were in 1837; their content no longer the preserve of the academic establishment who accept,

almost without question, the authenticity of these markings on what, in the end, amounts to nothing more than the word and the "good character" of Vyse. But in their haste to perpetrate a convincing fraud, Vyse and his team *did* make a number of mistakes; a number of subtle clues left behind in these chambers and, in particular, the top-most Campbell's Chamber that point to their deception. Let us now consider this further evidence.

BLOCK ORIENTATION

As noted previously, the conventional view of the 90° rotated alignment of the gang name glyphs (which encompasses the Khufu cartouche) on the inclined roof block of Campbell's Chamber (fig. 1.9 ,) is that these marks were painted onto a regular rectangular block while the block was lying horizontally at the quarry. When the block eventually arrived at the pyramid, it was then rotated and set upright (at around 30° from the horizontal plane) into the gabled roof, thus the horizontally painted quarry marks were now effectively rotated 90° and now appear vertically aligned on the chamber roof trussing (fig. 11.1). This all seems very reasonable and perfectly plausible—until we take a much closer examination of these roof blocks.

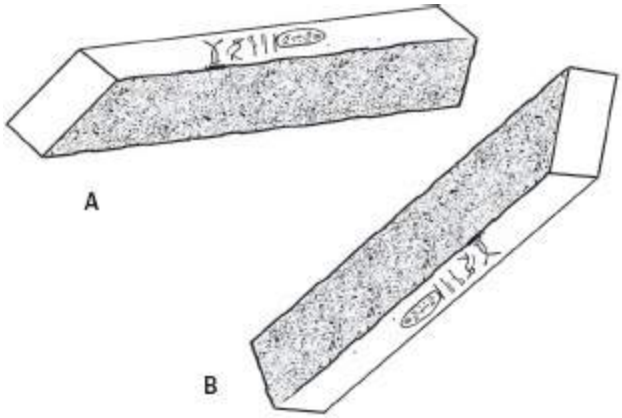

Fig. 11.1. (A) Gang name is painted onto a quarried block while it is lying horizontal at the quarry; (B) the painted block is then rotated 90°, inclined to around 30°, and set into the roof of Campbell's Chamber. (Image: Scott Creighton)

There is an inherent problem with this particular conventional scenario that attempts to explain the orientation of the quarry marks on this roof

block of Campbell's Chamber, and it relates to the *shape* of the roof blocks. Unlike most rectangular-shaped core blocks of the Great Pyramid, the roof blocks of Campbell's Chamber have an inherent, in-built orientation that is entirely separate from its positioning within the chamber. Artifacts such as an obelisk, a fluted pillar, a stele, a storage pot, a vertical writing register or even an anthropoid coffin lid all possess an inherent "top end" or "upness." In this regard the roof blocks of Campbell's Chamber are no different. This is because one end of each of these roof blocks is uniquely shaped, *tapered* to facilitate an adjoining roof block, thus creating a triangular support trussing (see fig. 9.1 ,). The tapered or gabled end of these roof blocks, like the pointed end of an obelisk, is akin to having a *this-way-up* sign built into these blocks right at the quarry. Regular, rectangular blocks have no inherent this-way-up sign and, as such, have no in-built orientation—either end of a regular-shaped block can be regarded as the top (or bottom) end (fig. 11.2).

It must surely stand to reason, then, that the quarry gangs crafting these roof blocks would most certainly have been aware which end of such a block was the top (the tapered end) and which was the bottom (the non-tapered end). As such, it makes little sense to find that, with this understanding, an ancient Egyptian scribe would go against normal ancient Egyptian writing convention (a convention that we find on all other top-ended artifacts) and paint these gang name signs perpendicular to the block's inherent top orientation; that is, rotated 90° to the block's in-built "upness" (fig. 11.3).

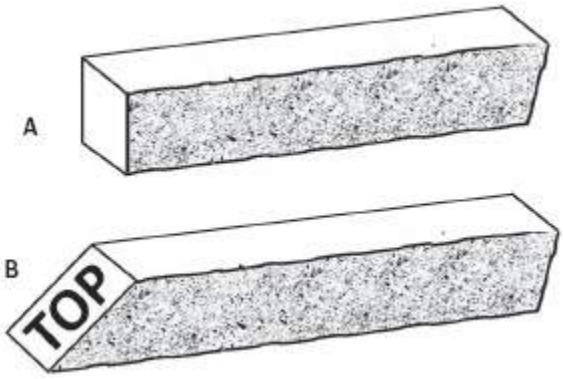

Fig. 11.2. (A) Regular rectangular quarried blocks have no inherent "top" orientation; (B) the tapered roof blocks of Campbell's Chamber have an " in-built" orientation, a "top" end. (Image: Scott Creighton)

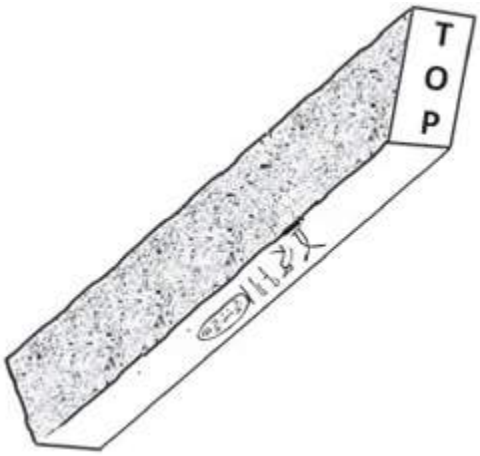

Fig. 11.3. The quarry marks are painted onto the roof block in Campbell's Chamber perpendicular to the top end of the roof block. (Image: Scott Creighton)

On no other ancient Egyptian artifact with a clearly defined top end do we find inscriptions rotated in such a way as we find on these long, gabled roof blocks in Campbell's Chamber. On any fluted column, obelisk, stele, storage pot, anthropoid coffin lid (i.e., artifacts with a clearly defined top end), we find that written signs, whether they be monumental or mundane, simple or complex, are written *always* with the top of each sign aligning with the top end of the particular artifact (fig. 11.4).

Given that the scribe would surely have known where the top of each gabled roof block was, then, in keeping with their grammatical rules, it surely would have been more natural for the scribe to write his signs onto such long blocks in *columns* with the top of each sign aligned with the top end of the roof block as in figure 11.5. This is all the more so given that, up until the end of the Eleventh Dynasty, strings of hieratic texts such as these would normally be written in *columns* and *not* in the horizontal rows we find on all the blocks in these chambers. [1] That not a single string of hieratic text is presented in column format within any of the chambers opened by Vyse is surely peculiar and even more so given that the column format of gang names from this period has been found elsewhere outside the Great Pyramid (see fig. 12.5). By further comparison, if we compare the signs in the old hieratic papyri ("Merer's diary") found in 2013 at Wadi al-Jarf we immediately find that the hieratic text is laid out in column format (as would be expected for this period) and that the chisel and quail chick hieratic signs (used in Khufu's gang name in Campbell's Chamber) in this

papyri find their best match with Goedicke's paleography around the Fourth Dynasty period.

Fig. 11.4. Artifacts with a clearly defined "top" have the top of each sign aligned to the top of the artifact. (Image: Scott Creighton)

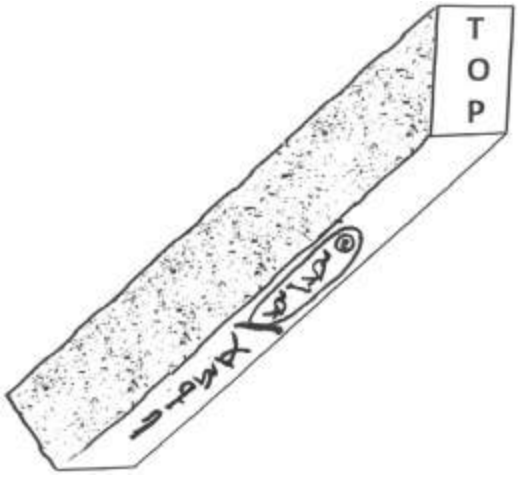

Fig. 11.5. Example of how the quarry marks should have been placed onto the roof block of Campbell's Chamber to conform to the grammatical rules of ancient Egyptian writing on a stone artifact with a clearly defined top. (Image: Scott Creighton)

In short then, with this "top-end" knowledge of these roof blocks it is, therefore, unlikely in the extreme that an ancient Egyptian scribe would

place the gang name (including the king's cartouche) onto the block in the perpendicular/horizontal manner that we see within the Great Pyramid today but would, instead, have painted the markings onto the block *upright* in a column that was more common for this period as shown in the examples in figures 11.5 and 12.5.

But this is precisely the sort of subtle detail that even the best forger might easily overlook, because the top end (the wedge) of these roof blocks are not actually visible within the chamber and, therefore, such a thought would unlikely have crossed the minds of the forgers—they treated the roof blocks as though they were regular, rectangular blocks (like the chamber wall blocks) and, in so doing, left behind a massive clue to their deception.

PAINT OVERLAP

Further evidence of in-situ painting of the Khufu cartouche arises from the observations of independent researcher and art expert Jon Snape, MA. As noted, it is believed that this gang name (including the Khufu cartouche) was painted onto this roof block when it was lying horizontally at the quarry. Given that hieratic marks in this early Old Kingdom period were usually written (and read) from right to left (and usually in columns), this means that the cartouche in this gang name would have been painted onto the block *first* (right to left when the block is lying horizontal at the quarry) and the *apr* sign (fig. 11.1A) painted *last* . The evidence, however, points to these marks having been painted onto this roof block by someone more used to our Western writing convention; that is, from left to right (thereby top-to-bottom painting of an in-situ block).

Snape points out that a close examination of the paint tracks between the top of the Khufu cartouche oval and the horizontal reed stroke (fig. 11.6, *top*) shows that the arc of the cartouche oval has been painted slightly *into and over* the horizontal reed stroke at the top of the oval. [2] This means that the higher positioned reed stroke must have been painted *before* the lower positioned cartouche oval that, if these are genuine hieratic marks painted from right to left on a block lying horizontally at the quarry, makes no sense whatsoever as the top of the oval should surely then be *under* the reed stroke. This observation by Snape makes sense *only* if these marks were painted onto the roof block from left to right (i.e., top to bottom of the in-

situ, vertical roof block), in which case the reed stroke is painted from the *left* and *before* the cartouche oval and thus presents us with further evidence of fakery.

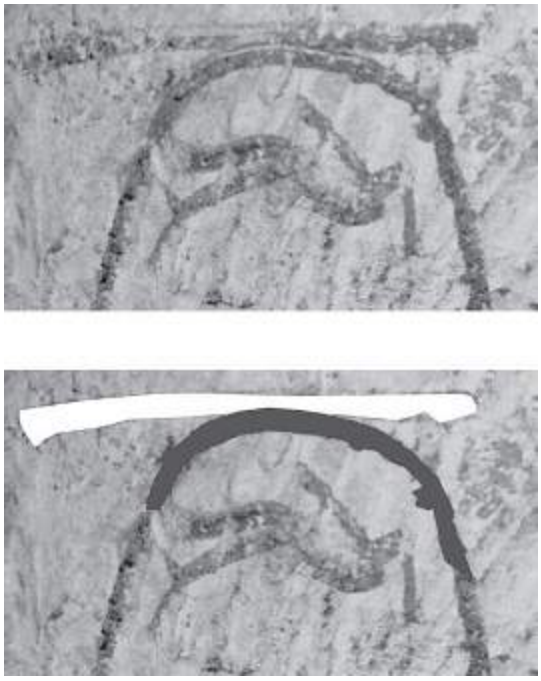

Fig. 11.6. The paint tracks of the arc of the cartouche oval (top) overlaps the paint of the horizontal reed stroke implying top-down in-situ painting of these signs. Overlap highlighted (bottom). (Photo: Patrick Chapuis. Highlight: Scott Creighton)

THE PAINT RUNNELS

In 2005 the French photographer Patrick Chapuis presented one of the most stunning high-resolution photographs ever taken of the Khufu cartouche in Campbell's Chamber. This remarkable photograph revealed some quite astonishing features of the painted cartouche, features that had, hitherto, gone completely unnoticed.

Using the Chapuis photograph along with some others published online by Colette Dowell, Ph.D., Snape further showed that the Khufu cartouche was painted by starting at the bottom-right corner of the cartouche oval. [3] It is in this area of the cartouche that we find the red ochre paint is most concentrated (fig. 11.7). The cartouche, from this bottom-right point, was drawn upward and around counterclockwise, and the paint

gradually becomes thinner as the brush moves around the cartouche to its finishing point at the bottom left.

A close examination of the Khufu cartouche on the roof block of Campbell's Chamber reveals something quite peculiar. At the bottom-right section of this cartouche where the paint is most concentrated, traces of two paint runnels can be observed running vertically down the roof block (fig. 11.8).

Fig. 11.7. Artist's impression of Khufu cartouche showing that the red paint is most concentrated at the bottom right of the cartouche. (Image: Scott Creighton)

Fig. 11.8. Artist's impression of the Khufu cartouche on the vertical roof trussing of Campbell's Chamber shows traces of red paint running vertically down the block from the bottom right of the cartouche where the paint is most concentrated. (Image: Scott Creighton)

Furthermore, where the cartouche roof block meets the low support wall, traces of red paint (presumably from the vertical paint runnels) can be observed spreading out laterally along the joint (fig. 11.9, below). Also, just

to the bottom left of the cartouche, as pointed out by independent researcher Philip Femano, Ph.D., the roof block appears to have been scraped in a long horizontal line (not shown here) as though to remove something from the surface of the roof block. Could this be evidence of a botched paint job where unwanted paint had trickled down from the bottom-right section of the cartouche, where the paint was at its thickest, and spread out along the joint of the low support wall?

What these paint runnels seem to indicate, of course, is that this gang name with its cartouche, contrary to what Egyptologists state, was actually painted *in situ;* that is, *not* when the block was cut at the quarry, but *after* the block was set in place. One might not immediately understand the implication of such an observation, but the simple fact is that this finding, all by itself, proves beyond reasonable doubt that this cartouche must then be a modern fake.

Fig. 11.9. Reproduction of Khufu cartouche on chamber roof block. Traces of red paint have spread laterally along the roof-wall joint. (Image: Scott Creighton)

Fig. 11.10. A vertically aligned Khufu cartouche painted in situ would have the signs presented upright and not rotated sideways. (Image: Scott Creighton)

We know this because the ancient Egyptian scribes would *never* have painted this gang name in situ in the manner that we observe it, with the signs rotated 90° (i.e., sideways). Were an ancient Egyptian scribe to have painted this gang name in situ, then the reed bar of the cartouche would have been placed at the bottom of the cartouche oval (not the top), and the characters within the vertical cartouche would have been painted standing upright (as in fig. 11.10).

In short, whoever painted the gang name (including the Khufu cartouche) that we observe today in Campbell's Chamber painted it onto the roof block in such a way as to give the *impression* that it had not been painted in situ, but the telltale runnels of paint entirely contradict this notion. And if this gang name was painted in situ (as the paint evidence strongly suggests), then it has clearly been faked, because, as stated, an ancient Egyptian scribe would *never* have painted an in-situ gang name in this manner.

PAINT SPOTS

Just about every drawing of the Khufu cartouche from Campbell's Chamber presents two small dots aligned side by side, just under the snake, or horned viper, hieroglyph (fig. 10.5 ,). Indeed, even in the first drawings of this cartouche made by Vyse (in his private journal), Hill, and Perring, we observe these two small dots placed below the snake sign. They are repeated time and time again in the various drawings produced by these men, although Perring, in his final drawing, failed to include them, perhaps realizing by this time that these two small dots were not in fact hieroglyphic signs and thus not actually part of the king's name. However, given the relatively poor understanding of ancient Egyptian hieroglyphics and hieratic script in 1837, one might forgive these early explorers for believing that these two dots under the snake hieroglyph were part of the king's name. It would have been natural to think such a thing.

Or would it?

Fig. 11.11. Reproduction of Khufu cartouche showing random paint spots in and around the cartouche. Why, when making their copies of this cartouche, did Vyse and Hill feel compelled to reproduce only the two side-by-side spots of paint under the snake sign? (Image: Scott Creighton)

When we have a close look at the cartouche photographs made by Chapuis, Dowell, and Schoch, we can easily see that there are countless other small spots of paint all over the Khufu gang name, particularly the

cartouche. Some of these paint spots are smaller than the two paint spots under the snake sign, while many are larger (fig. 11.11).

The question is, Why, when seeing all of these other small spots of paint scattered all over this cartouche, did Vyse and Hill identify only these two particular paint spots under the snake sign as being of significance? Why not any of the other paint spots? Indeed, why copy *any* of these paint spots as it would surely have been obvious to Vyse and Hill that the two paint spots below the snake sign were no more significant than any of the other countless paint spots in and around this cartouche and, as such, deserved no special attention?

For some bizarre reason, Vyse and Hill—on a number of occasions—saw reason to pick out and draw these two unremarkable paint spots in their own drawings. Why would they have considered that these two particular dots under the snake glyph had sufficient significance that would so compel them both to include them in their drawings of this cartouche?

There is one possibility that might explain such a peculiar action. This book contends that Vyse discovered a master cache of inscriptions that contained, inter alia, Khufu's various names and that Vyse subsequently copied the inscriptions into the various chambers he opened within the Great Pyramid. If we were to suppose that Vyse's master Khufu cartouche had two small dots under the snake sign (perhaps accidental drops of paint or ink) and that these were the *only* spots on his master drawing, then it is quite likely (and understandable) that Vyse would in such a circumstance have believed that the two dots (the *only* dots) were a fully intended part of the king's name and, as such, would have copied them in good faith, not realizing at this time that he was actually copying superfluous marks. These superfluous marks were then replicated in Campbell's Chamber, in Vyse's private journal (several times), and in Hill's facsimile drawing.

It seems, though, that Vyse later realized that the two dots were not, in fact, part of the king's name, for in his published book he presents the drawing made by Perring in which he had now omitted these two dots from the Khufu cartouche, perhaps logically reasoning (as Vyse and Hill surely also should have done) that these two dots were just random splashes of paint that had no more significance than any of the other paint splashes.

THE PEBBLES

Further analysis of the Suphis/Khufu cartouche in Campbell's Chamber presents even more striking evidence that this cartouche appears to have been faked.

Close examination of the cartouche reveals numerous small pebbles stuck onto the surface of the roof block. These small pebbles can be seen scattered right across the gang name (most especially the cartouche), sometimes in small clusters, sometimes individually, as shown in the images in figure 11.12 on p. 136.

Within the painted areas of the cartouche it can be observed that the pebbles have been painted over with the red ochre paint, which allows us to deduce that these pebbles were somehow affixed to the roof block *before* the block was painted. Even in the *unpainted* areas of this roof block (fig. 11.12d) we find that small clusters of pebbles are affixed to the roof block but, obviously, have not been coated with the red ochre paint.

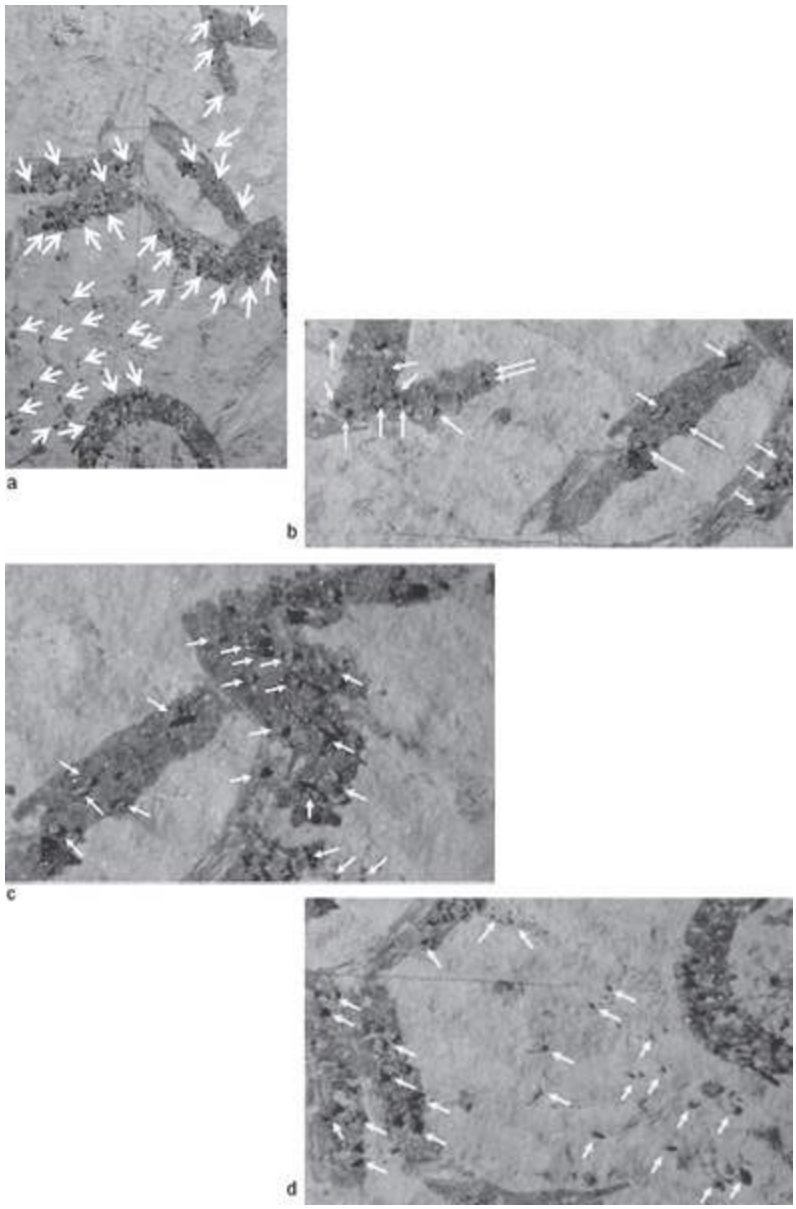

Fig. 11.12. Photos of the Khufu cartouche showing clusters of small pebbles affixed to the surface of the roof block (arrows). Red paint can be observed on top of some of the pebbles. (Image: Patrick Chapuis)

One might reasonably ask why any of this matters. The answer to that question lies in how these clusters of pebbles managed to affix themselves to a sloping, inclined block of Tura limestone. These small pebbles can't just attach themselves to such an inclined block by themselves; they need a bonding agent, a strong adhesive of some kind. The most likely adhesive that would be strong enough is lime slurry—a thin plaster mix. The roof blocks of Campbell's Chamber weigh around sixty tons—or thereabouts—

and moving such heavy weights is not at all easy. The ancient builders would have needed all the help they could get. To assist in the moving of such a heavy block the ancient builders would often use lime slurry as a lubricant to reduce the friction of the block as it was being maneuvered into its final position (as noted in chapter 9). Traces of this slurry were found on the stone blocks throughout the relief chambers as well as in the Descending Passage of the Great Pyramid, where it is believed to have been introduced to help facilitate the slipping of three granite plugs down the passageway to block access to the upper chambers of the pyramid. We find it also within the grooves of the "granite leaf " block within the Ante Chamber of the Great Pyramid.

As the block was being moved through the slurry, pieces of grit and small pebbles would be trapped and become affixed to the surface of the block as it is slid into place and would effectively become cemented onto the raised surface of the block as the slurry lubricant dried and hardened, acting like a thin plaster.

All of which, of course, begs the obvious question: If the block was dragged through a lime slurry mix and small stones became affixed to the surface of the block, how is it that we can see the gang name (and its cartouche) so clearly? Surely, if these marks had been painted onto the block before it was set in place, then these quarry marks would have been totally obliterated by being dragged through the lime slurry lubricant. At the very least, we would only be able to perhaps observe faint traces of the quarry marks, as they would have been almost completely smeared and coated with the lime slurry, the same lubricant that caused the small pebbles to become affixed to the surface of the block.

It is noticeable, though, that these small pebbles appear to be concentrated in the painted areas (i.e., concentrated within the brush strokes of the painted signs), and, as such, it has been argued that the red ochre paint itself may have acted as the bonding agent. However, experimental research conducted by myself shows this to be highly unlikely. Water-based red ochre paint simply does not possess sufficient bonding strength to hold such small pebbles in place, breaking loose with just the slightest of touches. By contrast, further experimental research has shown that plaster slurry can solidly hold such small pebbles to the block's surface. The higher concentration of pebbles observed in the painted areas of these marks may

simply be the result of maintenance of the chamber by the Egyptian authorities that is known to have taken place, brushing away detritus from the unpainted areas of the block while, naturally, avoiding touching the precious painted areas. Over time the effect of this produces a higher concentration of these small pebbles in the painted areas of the block's surface.

The fact remains—the Chapuis photograph of these painted marks shows small stones affixed to the inclined roof block in painted areas *and* unpainted areas, a situation that is easily explained in *both* instances by invoking the use of a strong bonding agent such as a thin lime slurry, which we know the ancient Egyptians used to help slide such heavy blocks into place.

What this tells us, once again, is that these particular quarry marks—the gang name and its cartouche—were obviously painted onto this roof trussing only *after* the block had been set in place. And, that being the case, then it is simply inconceivable that an ancient Egyptian scribe would have painted the gang name onto this in-situ roof block with the signs rotated sideways; these glyphs, painted onto an in-situ block, would most certainly have been painted into the vertical cartouche in an *upright* fashion as in figure 11.10.

THE PLASTER

Conventional thought with regards to the gabled roof blocks of Campbell's Chamber informs us that they are made of a fine white limestone hewn from the quarries at Tura. The facts above notwithstanding, any white plaster slurry applied to the surface of a white limestone block would make it, through simple observation alone, somewhat difficult to tell if there was a white plaster layer applied to the surface of the white limestone block. In consideration of this dilemma, in November 2015, I contacted Dominique Görlitz (via video link), who, in 2013 (along with Stefan Erdmann), had removed a small sample of ochre paint (fig. 11.13) from one of the glyphs in Campbell's Chamber (*not* from the Khufu cartouche) intending to have the sample chemically analyzed by a German laboratory to determine its mineral composition.

Görlitz and Erdmann had hoped to have the paint sample radiocarbon dated to determine its age (from the organic material sometimes added to ancient ochre paint as a binding agent) and thus to determine the pyramid's age. Alas, however, the ochre paint sample size was insufficient for radiocarbon testing to proceed. However, the laboratory was able to provide Görlitz and Erdmann with other information regarding the mineral composition of the material the ochre paint had been painted onto; that is, the immediate subsurface behind the ochre paint. If this ochre paint had indeed been painted directly onto a limestone surface, as conventional opinion insists, then the chemical analysis of the block material immediately *behind* the ochre paint sample should have shown its mineral composition to consist of calcium carbonate—limestone. But it did not. In our video discussion (later confirmed to me by e-mail), Görlitz explained that the laboratory analysis found that the mineral composition of the surface material his ochre paint sample had been painted onto was *not* calcium carbonate (limestone) but rather calcium sulfate—*plaster.* No evidence of calcium carbonate was reported from the test sample analysis. This finding supports the proposition that a thin, plaster slurry was used to slide the blocks into their final position and that this same plaster slurry could have resulted in some small pebbles bonding to the block's surface, as shown in figure 11.12a–d.

Fig. 11.13. Photo of a quarry mark on a roof block in Campbell's Chamber showing area (circled) where ochre paint (and block surface) was removed by Görlitz and Erdmann for

scientific analysis. (Photo: Dominique Görlitz)

It should be noted here, in the interests of clarity, that it is known that some plaster repair works appear to have been carried out in this area of the chamber. However, the ochre paint sample removed by Görlitz and Erdmann had no plaster on *top* of the ochre paint they removed—the plaster the laboratory analysis found was from the material directly *behind* the paint sample. It is also known that limestone blocks can exude tiny trace elements of calcium sulfate. Typically, this will, on average, amount to around 0.038 percent [4] of a given sample. Such a tiny trace element would have virtually zero bearing on the limestone's hardness, with limestone having a mohs rating of 3.5 and calcium sulfate, a much softer substance, a mohs rating of 2. In their tests, Görlitz explained to me that the sample they removed was found to be much softer than natural limestone and entirely consistent with plaster. There is little doubt, then, that these hieratic signs were painted onto a surface of thin plaster.

But the laboratory's scientific analysis did not end there. An analysis of a number of rectangular-shaped patina markings found on the granite underside of the King's Chamber ceiling within the Great Pyramid revealed that the mineral composition of these dark patches consisted of an oxide of iron known as "magnetite." While most metamorphic and igneous rocks such as granite contain small traces of this mineral, the concentration of magnetite found through scientific analysis of these patina strips was far in excess of naturally occurring concentrations, and their regular shape on the roof blocks of the King's Chamber would seem to lend strong support to the view that the builders of this structure had access to iron tools.

As Görlitz explained to me in a private e-mail:

> We investigated the Aswan granite from the King's Chamber which definitely does not contain magnetite in a measurable concentration. Even more important is the way this magnetite patina was discovered. Each beam on the King's Chamber ceiling contains this patina in the same size, color and appearance. Always against each other and at the same position.
>
> This arrangement led me to the conclusion (before we made our metallurgical investigation) that this pattern must have been

caused by an anthropogenic activity/effect. Furthermore, when I first saw this patina, I could see a black metallic glimmer which could never be the result of geometabolism but was clearly the result of an interaction between a "metal" and the granite stone!

Later in the laboratory we could detect by micro analysis and XPS, a huge concentration of Fe3O4 (magnetite) and further iron oxides which clearly points to a layer which was formed by a stone-iron interaction. In cooperation with iron experts of the Technical University of Freiberg/Saxony, their analysis of the material confirmed my hypothesis that an "unknown" iron tool must have been used during the erecting of this chamber! (Incidentally, pure granite contains Fe2O—hematite but no magnetite.)

This discovery changes our perception of the materials used in antiquity and thus we have to reevaluate our concepts about the technical development of the 4th Dynasty . . . the ancient Egyptians might have lifted their giant blocks without the use of ramps. The iron discovery allows the use of simple blades which worked as a protection for the brittle granite beams. Furthermore, the workers could use wedges in order to push up the beams from layer to layer, just as Herodotus described. . . .

In a large lifting experiment I was able to prove this hypothesis experimentally. Only two people were needed to raise a 16 ton block. It is not proof as such but it delivers an empirical argument that the written ancient records from Herodotus might be true. . . .

Returning to the issue of the plaster—given that it is inconceivable in the extreme that ancient Egyptian quarry workers would apply a layer of plaster to any block at the quarry, paint, and then transport it, we have to accept that the plaster was applied to the gabled roof blocks when in situ; that is, after or just as the block was being maneuvered into its final inclined position in the pyramid, perhaps by sliding it through a thin plaster slurry to reduce friction. And thus, as previously stated, we then have to ask why any ancient Egyptian scribe, with an inclined roof block (essentially a sloping wall) in front of them, would decide to paint markings onto such a "wall" in

a *sideways* manner. Surely, when writing a piece of text onto such an inclined surface we would still write our text upright.

This rotation of the quarry marks is, of course, the kind of "trick" a determined forger would employ to make the marks *seem* genuine; a rotational trick that forces us to conclude that the marks *must* have been painted at the quarry, ergo, *must* be authentic. The empirical scientific evidence, however, strongly suggests otherwise.

THE PENCIL

Once again, the high-resolution photography of Patrick Chapuis revealed another extraordinary feature of the Khufu cartouche within Campbell's Chamber, a feature that is barely perceptible on most other photographs of the cartouche. This was first brought to my attention by independent researcher Audrey Mulertt in early September 2014, after she noticed that the Khufu cartouche in Campbell's Chamber had been overlaid with a pencil grid, much like an artist's drawing grid (fig. 11.14).

This pencil grid is a complete mystery. No one, either in mainstream or alternative circles, seems to know how, why, or when this grid appeared in the Khufu cartouche, although even in some of the earliest photographs of the cartouche, made by the Egyptologist Rainer Stadelmann in the 1990s, the pencil grid can be seen, though only just.

But what could the purpose of such a grid have been? In the art world such grids are sometimes used when an artist has a small-scale drawing that he or she wishes to make an enlarged copy of. In this instance we can imagine that this pencil grid was drawn on the roof block of Campbell's Chamber and a similar, smaller grid was drawn on a source master. The grid drawn over the smaller source drawing acts as a guide to enlarge the drawing, using the enlarged grid, on the roof block. The question we have to ask now is whether this pencil grid went *over* the painted hieroglyphs or *under* them.

Fig. 11.14. Photo of the Khufu cartouche showing the (enhanced) pencil "drawing grid" (Photo: Patrick Chapuis. Grid enhancement: Scott Creighton)

Because the ancient Egyptians did not have graphite pencils, it stands to reason that if these pencil lines are *under* the red ochre paint, the painted hieroglyphs must be relatively modern and thus fake. If, however, the pencil lines are found to be on *top* of the paint, all that would establish is that the pencil grid lines were drawn *after* the hieroglyphs had been painted onto the stone block; this may have been in ancient times or it may, as other evidence presented elsewhere in this book suggests, have been relatively recent. It is known, for example, that a number of other people, such as Perring and Egyptologist Alan Rowe, also made reduced-scale drawings of this cartouche, as did Hill with his facsimile drawings, so it is entirely possible that any of these men could have placed this pencil grid over the cartouche sometime after May 1837, when Vyse first opened this particular chamber. In her experimental research, Mulertt demonstrated that a pencil line drawn onto stone, even when painted over with various paints, can actually appear as though it has been drawn on top of the paint, as the graphite seems to bleed through the paint. [5]

It seems, then, that only modern forensic testing might be able to definitively determine whether this pencil grid line in Campbell's Chamber goes under or over the painted quarry marks of the Khufu cartouche. As stated, if the pencil lines go under the ochre paint, then the quarry marks are, unquestionably, fake. If, on the other hand, it is found that the pencil lines have been drawn over the quarry marks, then the question as to the authenticity of the painted quarry marks remains open, as the pencil lines could have been placed over the quarry marks at any time after May 1837.

CHAPTER ELEVEN SUMMARY

- The roof blocks in Campbell's Chamber, unlike the regular rectangular-shaped wall blocks in this chamber, have an inherent "top end"—a tapered end of the block that would have been created right at the quarry. As such, any writing on such a top-sided block, in accordance with all other ancient Egyptian writing, would have the top of each sign aligned with the top end of the roof block. In Campbell's Chamber, however, we find that the top of each quarry mark is rotated 90° from the top end of the roof block and, as such, contradicts normal ancient Egyptian grammatical rules used for monumental or mundane inscriptions.
- Up until the Eleventh Dynasty hieratic writing was usually written vertically in columns rather than the horizontal arrangement we find on the blocks in these chambers.
- A close examination of the Khufu cartouche in Campbell's Chamber shows small traces of paint having run vertically from the bottom-right corner of the oval. These paint runnels then seem to have spread out in the joint between the roof block and the chamber support wall. This evidence suggests that this cartouche was painted in situ.
- If the Khufu cartouche was painted in situ (as the paint runnels appear to indicate), then the cartouche is clearly a fraud, because an ancient Egyptian scribe would *never* draw a vertical cartouche and then place the signs sideways within that cartouche; the signs would have been painted upright.

- The paint of the Khufu cartouche oval overlaps the paint of the reed stroke, indicating that the cartouche oval was painted last, ergo top-to-bottom writing (i.e., left-to-right writing on a horizontal block at the quarry). Ancient hieratic text is always written right-to-left.
- The Khufu cartouche in Campbell's Chamber is speckled with numerous paint spots. The random nature of these paint spots would have indicated to anyone observing this cartouche that these spots were not actually of any consequence and certainly not part of the king's name. It is surely peculiar, then, that Vyse and Hill felt compelled to draw two of these paint spots under the snake sign. Of course, if Vyse and Hill had found an original source cartouche where these two dots under the snake sign were the *only* two dots, then one can understand why they might have felt that they were part of the king's name. But it is simply inconceivable that they could have thought this given even a cursory examination of the many-dotted Khufu cartouche in Campbell's Chamber.
- In 2014 two German researchers, Dominique Görlitz and Stefan Erdmann, removed a small fragment of ochre paint from one of the signs (not the king's cartouche) in Campbell's Chamber to have it radiocarbon dated. Alas, however, the ochre sample size was inadequate for carbon-14 testing to proceed. However, the testing laboratory *was* able to determine that the chemical composition of the immediate subsurface of the ochre paint (the roof block surface), rather than being of calcium carbonate (limestone), was found, instead, to be composed of a layer of calcium sulfate (plaster). No evidence of calcium carbonate was reported from the test sample analysis.
- A close examination of the Khufu cartouche in Campbell's Chamber shows many small pebbles or pieces of grit affixed to the surface of the vertical ceiling blocks in both painted and unpainted areas. The only way in which these small stones could remain affixed to the block surface is by the use of a strong bonding agent of some kind, such as plaster. The ancient Egyptians would often use a lime slurry mix to reduce friction when moving such immense weights. When this lime slurry dried it would harden, thereby "cementing" these small stones onto the surface of the block. We have to ask, Why aren't the gang

name and its cartouche smeared with the lime slurry that bonded these small stones to the block? Again we have evidence supporting the view that these marks were painted onto the roof trussing in situ. As such the cartouche and other marks are clearly fraudulent as an ancient Egyptian scribe would simply *never* place characters sideways into a vertical cartouche.

- A close inspection of the Khufu cartouche also shows that a pencil drawing grid has been placed over or under the cartouche. It is unknown when this grid was created. If the pencil lines are under the cartouche, then this would identify the cartouche as a fake, because the ancient Egyptians did not use such pencils. If the pencil line goes *over* the cartouche, then the pencil markings are clearly modern and could have been drawn by anyone who entered the chamber after it was opened in 1837.

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EXHIBIT 8

SIGNS OUT OF TIME

We have seen in previous chapters how the Suphis/Khufu cartouche in Campbell's Chamber presents a number of anomalous features. But these are not the only anomalies we find when we consider this gang name (or the gang names from the other chambers). If we now consider all the signs within the Khufu gang name (fig. 12.1), we find something rather peculiar.

According to some Egyptologists—and they are by no means certain—the translation of this gang name from Campbell's Chamber is to be read as "The gang, friends of Khufu." Other Egyptologists interpret "friends" as "companions." The problem they have in properly interpreting these glyphs stems from the third sign (from the left), which resembles our letter *q;* some Egyptologist believe this to be the ancient Egyptian hieratic "chisel" sign, while others, such as Zahi Hawass, consider it to be a different sign entirely. The reason for the doubt is partially understandable when we consider that the chisel sign in this period was usually drawn differently.

Fig. 12.1. Artist's impression of the Khufu gang name from Campbell's Chamber (rotated 90° counterclockwise from chamber original) (Image: Scott Creighton, based on original drawings by J. R. Hill)

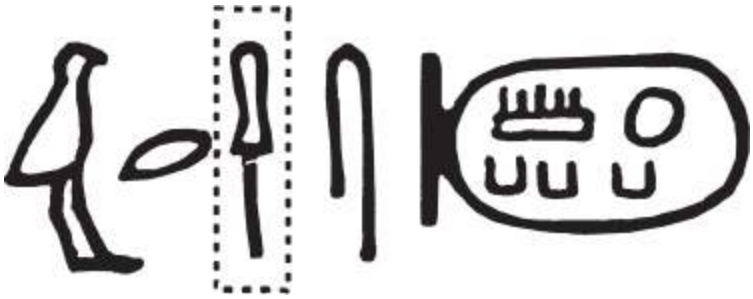

Fig. 12.2. A chisel sign (dashed box) from Menkaure's pyramid complex (Image: Scott Creighton, based on original drawing by Alan Rowe)

As we can see, the hieratic chisel sign (fig. 12.2) used by the builders of Menkaure's pyramid complex some fifty or so years *after* the Great Pyramid is a chisel sign that actually does look pretty much like a chisel, and this hieratic form of the sign is actually not too far removed or evolved from the original monumental hieroglyphic form. It is also worth mentioning that the chisel sign found at Menkaure's pyramid complex is preceded by the mouth sign (fig. 12.2). In ancient Egyptian writing the chisel and mouth signs often (though not always) were written together. This is because the chisel sign can have two different phonetic sounds, and the mouth sign, when used in this way, is known as a phonetic complement as it helps the reader to differentiate one phonetic interpretation from the other. The disputed *q* sign in the Great Pyramid is believed by Egyptologists to have the same phonetic sound as the chisel sign that is normally presented alongside the mouth sign, except, on this occasion, there is no mouth sign; no phonetic complement is present.

Why, then, do we find in Khufu's pyramid what is believed by Egyptologists to be a chisel sign that is quite unlike the hieratic chisel sign that the ancient Egyptians apparently used both *before* and *after* Khufu's time? Is the absence of the mouth sign (phonetic complement) perhaps an indication that this sign has been incorrectly identified?

Alas, with ancient Egyptian writing nothing is ever simple. As noted in chapter 1, ancient Egyptian writing made with ink or paint (as opposed to the sculpted monumental script) slowly evolved over time to morph, stylistically, into very different signs—simplified hieratic signs—that represented particular monumental hieroglyphic signs. And although some hieratic signs existed prior to the sculpted hieroglyphs, according to Hans

Goedicke it seems that the simplified forms of signs became standard only from around the Fifth Dynasty. [1]

And so, it is argued, the chisel sign in the Khufu gang name (fig. 12.1) is simply an evolved and simplified hieratic version of the monumental hieroglyphic chisel sign. This implies, of course, that the gangs of Menkaure's pyramid-building project, built long *after* Khufu's pyramid, for some reason reverted back to using the least evolved hieratic chisel sign (fig. 12.2) to make their own graffiti marks on the stone blocks of Menkaure's pyramid complex—a kind of reverse evolution.

In his standard reference of hieratic signs, *Old Hieratic Paleography,* Goedicke shows that the closest match to the hieratic chisel sign we observe in Campbell's Chamber (fig. 12.1) arises in the paleographical record sometime between Dynasties Eight and Eleven, [2] long after the Great Pyramid and its internal relief chambers were built and sealed. So it seems that this chisel sign (if that is what it is) found its way into the Great Pyramid long before it had actually evolved into the form we find in the pyramid.

If we now consider some of the other signs in the various gang names from these relief chambers, strangely, we find a similar pattern—signs that, according to Goedicke's *Old Hieratic Paleography* , have their closest hieratic match also arising sometime between Dynasties Eight and Eleven.

The hieratic signs shown in figure 12.3 (p. 150) represent (from left): Sail, [3] Quail, [4] and Sekhem Sceptre. [5] Once again, consulting Goedicke's *Old Hieratic Paleography,* we find that these signs have their closest hieratic match arising sometime between the Eighth and Eleventh Dynasties, long after the Great Pyramid was completed.

Most of the other signs within the gang names of the relief chambers (for which we have sufficient data) appear to have changed very little up to the end of the Eleventh Dynasty (some a little earlier). For example, the folded cloth sign (fig. 12.4, *far right*) barely evolved at all across all of this time, about one thousand years of ancient Egyptian history. What this means, of course, is that the hieratic signs in these gang names (for which there is sufficient data to check) were being used between Dynasties Eight and Eleven, which raises an interesting possibility: Could it be that around this time of ancient Egyptian history there was some form of restoration

project occurring at Giza? Is this perhaps the reason that we find gang names (perhaps from a Khufu revival cult) using hieratic signs from this much later period and why the signs have been written horizontally rather than the much earlier vertical arrangement? And could it have been that Vyse came across this cache of gang names somewhere at Giza, recognized the Khufu cartouche, and simply had everything copied into the relief chambers, not realizing, in his ignorance of evolving hieratic texts, that he was copying hieratic signs from much later dynasties?

Fig. 12.3. These signs from the various gang names found in the relief chambers of the Great Pyramid find their closest paleographical hieratic matches sometime between the Eighth and Eleventh Dynasties. (Image: Scott Creighton)

ANOTHER SIGN?

As stated earlier, the chisel sign in the Khufu gang name is disputed among Egyptologists. So, if not a hieratic chisel sign, then what other character might this crudely drawn sign in the gang name of Khufu actually be? A possible clue to this comes to us from the facsimile drawing Vyse had his assistant Hill make of this gang name (fig. 12.4).

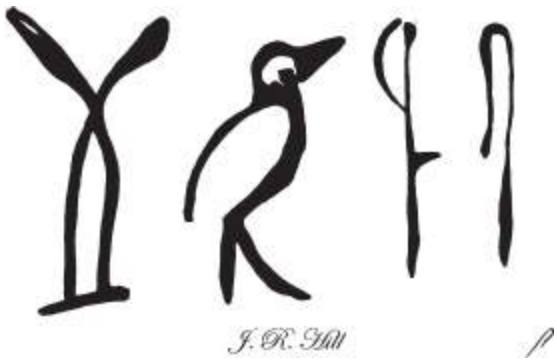

Fig. 12.4. Artist's impression of facsimile drawing of the Khufu gang name (without the cartouche) from Campbell's Chamber (Image: Scott Creighton, based on original drawing by J. R. Hill)

Putting aside the anomalous orientation of these glyphs relative to Hill's signature (which, as previously noted, uniquely among Hill's facsimiles, locks them wrongly into a horizontal arrangement), at first glance there does not appear to be anything remarkable or unusual about this drawing of the gang name signs. However, a closer inspection of this facsimile sheet in the British Museum reveals something rather curious.

Notice that at the bottom right-hand corner of the facsimile sheet (fig. 12.4) a small symbol has been drawn that is similar (though inverted) to the stafflike sign to the far right of the gang name. This small mark was made in black ink, ink not unlike that used by Vyse in his private notes.

We have to ask, Why has this small stafflike hieratic sign been drawn in black ink on this facsimile sheet of the Khufu gang name? Of the twenty-eight facsimile drawings made by Hill, *only* this single drawing bears a small hieratic mark drawn in black ink. So, what is it about this particular drawing that might have brought this small staff-like sign to have been placed in the bottom-right corner of the sheet? What is its purpose?

This curious mark almost seems like an afterthought, as though it has been placed on this drawing as a reminder of something. Could this "something" perhaps be a modified sign? In other words, is it possible that the questionable chisel glyph we observe today in Campbell's Chamber was actually meant to be something else (i.e., a second staff-like glyph) but that, by accident or design, it was "wrongly" copied (by Hill) onto the wall of Campbell's Chamber, thereby creating the dubious and contentious chisel sign on the roof of the chamber? Could it be that the sign Hill *meant* to copy onto the ceiling block of Campbell's Chamber (from the secret cache) was actually a second stafflike glyph but that, for whatever reason, he messed up in copying it onto the gabled roof? And, having messed it up (by mistake or by intention), did he then copy this "mistake" onto his facsimile drawing, perhaps making sure, of course, to record the *intended* sign by placing a small, surreptitious note of it in black ink at the bottom-right corner of the sheet?

But what, if anything, is there to support such a contention? Well, the first thing to say is that it is unlikely that Hill would mess up such a glyph in several different ways. If he messed up this glyph when painting it onto the roof gable of Campbell's Chamber, then it is likely that he simply messed up one aspect of the sign; that is, the handle loop, which he should have painted similarly to the stafflike glyph to its immediate right (fig. 12.4). This means, of course, that the small horizontal stroke on the shaft of the sign was probably *not* a mistake and that this small stroke was actually part of the original stafflike sign Hill attempted to copy. This means that there would be two slightly different stafflike signs—one *with* a small horizontal stroke on the shaft and one without. But was such a sign (i.e., a staff with a small horizontal stroke on the shaft) extant at this time in ancient Egypt?

As it happens, we find that this sign appears among some graffiti painted by work gangs at the Fourth Dynasty harbor of Wadi al-Jarf (fig. 12.5).

As we can see, the graffiti from the harbor of Wadi al-Jarf presents a painted stafflike sign that has a small, horizontal stroke projecting from the vertical shaft of the sign. So clearly this variation of the stafflike sign *does* exist elsewhere in the archaeological record. But what evidence is there that might indicate that Hill's original source was, in fact, a staff-like glyph with a small horizontal stroke on the vertical shaft, that this is what he *should* have copied onto the gabled roof trussing of Campbell's Chamber, but that he messed up? The proof of this can actually be found not in Vyse's *published* account but in his *private* field notes.

In his entry of June 16, 1837, Vyse drew the hieratic signs for the Khufu gang name into his private journal (fig. 12.6). As we can see in figure 12.6, in Vyse's *private* journal we do not have the hieratic chisel glyph that can be seen today in the gang name in Campbell's Chamber but rather a second stafflike glyph with a small horizontal stroke, just like that found among the graffiti at the harbor of Wadi al-Jarf (fig. 12.5). Here, then, we may be observing in Vyse's private notes the sign that Hill should have copied into the Great Pyramid but that, by accident or intent, was "modified" by him.

Fig. 12.5. Reproduction of Khnum-Khuf gang name from harbor graffiti at Wadi al-Jarf showing a stafflike glyph with a small horizontal stroke on the shaft (left column, middle glyph) (Image: Scott Creighton)

Fig. 12.6. Reproduction of the Khufu gang name (without the cartouche) from Vyse's private journal showing the stafflike glyph with a small horizontal stroke on the shaft (third from left) (Image: Scott Creighton)

It seems, then, that while Vyse may have correctly recorded the original source into his private journal, Hill subsequently copied it incorrectly onto the gabled roof. By so doing he inadvertently created a sign that, though not perfect in every detail, closely resembled the ancient Egyptian hieratic chisel sign, so much so that Egyptologists, even though some disagree, by and large believe the sign was intended as a hieratic chisel sign, even if roughly drawn.

But, as we have seen, the actual truth of the matter is revealed in Vyse's private journal, that this sign was originally a stafflike sign (with a small horizontal stroke on the shaft) like the one attested at Wadi al-Jarf. We

have one sign written in Vyse's private journal but an entirely different sign in the actual chamber. Why the contradiction?

So, once again, with this contradictory evidence from Vyse's private journal we have reason to doubt the accepted version of the discovery of the markings in these chambers as presented by him in his published account.

Of course, skeptics will assert that Vyse (rather than Hill) merely miscopied the gang name from Campbell's Chamber into his private journal. While this remains possible, it would require Vyse to have miscopied a sign from Campbell's Chamber (a sign that Egyptologists themselves do not entirely agree on), a sign of which there is no other example in this period outside this chamber, and to then somehow manage to substitute it in his private notes with the variant of a sign that actually *is* evidenced elsewhere in this period. It also requires us to accept that the ancient builders, apparently having been using the questionable hieratic chisel sign we observe in Khufu's pyramid, reverted back to using the less-evolved hieratic chisel sign (fig. 12.2) long after the Great Pyramid was built, as evidenced by the graffiti found in Menkaure's pyramid complex. This makes little sense.

It seems that the more likely scenario here is that the two stafflike signs in Vyse's private journal were true and correct copies of marks Vyse found elsewhere (his master source) and that Vyse had Hill copy this source into the pyramid, whereupon one of the two stafflike signs (i.e., the sign with the horizontal stroke) was miscopied, either by mistake or by design. And, as previously stated, this badly copied stafflike sign may explain why we now find the small, curious stafflike sign drawn in black ink at the bottom-right corner of Hill's facsimile drawing (fig. 12.4)—as if someone was surreptitiously noting what the disputed chisel sign *should* have been (i.e., the stafflike sign we find in Vyse's private journal).

THE TWO STAFFS

One other aspect of this curious situation that also needs to be considered is the meaning of the word (the gang name) when it has two stafflike signs instead of what is believed to be a chisel sign beside a stafflike sign. After all, if the word with two stafflike signs was entirely meaningless, then that

would suggest that Vyse had copied the gang name incorrectly into his private journal. So, what meaning, if any, does the gang name have when it is written with two stafflike signs?

We learned earlier that the Khufu gang name in Campbell's Chamber of the Great Pyramid (fig. 12.1) has been interpreted by Egyptologists as meaning "friends" or "companions" of Khufu. However, when we replace the disputed chisel sign with a second stafflike sign, as shown in Vyse's private notes (fig. 12.6), the meaning changes very significantly. Instead of being interpreted as meaning "friends" or "companions," the gang name written with two stafflike signs now becomes "destroyers" or "burners" (of Khufu), a very profound change indeed. And it is a change that may actually have more historical merit and significance than the mainstream interpretation.

Very few things about the life of Khufu have come down to us from the writings of the ancient historians. But one of the things that we are told about Khufu, courtesy of Herodotus, is that he was apparently utterly despised by the entire population of the country as a cruel leader who closed all the temples and forced his people into terrible hardships through the construction of his pyramid. Indeed, Khufu was so despised by the population that it is said that he could not even use his pyramid for his burial for fear of it being ransacked and his remains destroyed, his afterlife terminated before it had even begun.

We have to ask, then, What makes more sense given what we under stand about the type of ruler Khufu apparently was? Is it more likely that we would find an inscription with "friends" (of Khufu) or one that reads "destroyers" (of Khufu)?

CHAPTER TWELVE SUMMARY

- The gang name associated with the Khufu cartouche is commonly translated as "friends" or "companions" (of Khufu).
- The hieratic chisel sign within the Khufu gang name in Campbell's Chamber is somewhat curious, having a directly comparable hieratic sign only from a much later period.

- Several other signs from the various gang names present in the Great Pyramid find their closest hieratic match in the paleographical record sometime between the Eighth and Eleventh Dynasties, long after the pyramid was built and its internal chambers sealed.
- The gangs in the *later* construction of Menkaure's pyramid complex used a hieratic chisel sign that had barely evolved from the original monumental hieroglyphic sign. Thus we have in Khufu's pyramid a supposed hieratic chisel sign that had evolved quite considerably from the original monumental hieroglyphic sign and a *later* chisel sign from Menkaure's complex that shows the hieratic chisel sign in this period having barely evolved at all from the original monumental hieroglyphic sign.
- The chisel sign is usually (though not always) accompanied with the mouth sign.
- Hill's facsimile drawing of the Khufu gang name shows in the bottom-right corner of the facsimile sheet a small stafflike sign drawn in black ink.
- Of Hill's twenty-eight facsimile drawings, this is the only one with such a small hieratic sign drawn in black ink. It may have been placed on this sheet to indicate the sign Hill had *meant* to paint.
- There is hieroglyphic evidence from Wadi al-Jarf of a variant staff-like sign with a small horizontal stroke on the vertical shaft.
- Vyse's *private* journal shows the Khufu gang name written with *two* stafflike signs (one with a horizontal stroke on the shaft) and no chisel sign.
- Herodotus tells us that Khufu was a king who was highly despised by the entire ancient Egyptian population, so much so, in fact, that Herodotus tells us Khufu did not have himself interred in his pyramid, so afraid was he that the population would desecrate his remains. A gang name with two stafflike signs would be interpreted as "destroyers" or "burners" (of Khufu).

13

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EXHIBIT 9

THE JOURNAL SPEAKS

In the absence of official scientific data proving the authenticity of the painted hieratic signs within the Great Pyramid, it seemed that the only remaining avenue to explore that might allow us to perhaps determine the truth of these marks was Vyse's *private* journal—his personal field notes—from his time at Giza in 1837. While Vyse tells us much about his activities at Giza in his *published* account, it was possible that if his private field notes could be located and examined, then there may be more to be gleaned from those pages—information that Vyse would have much preferred not to have in the public domain.

Author Alan Alford had long sought this document, as he too realized that if it could be located and inspected, it might reveal some pertinent truths about Vyse's time at Giza that had been omitted by Vyse from his published work. For myself, I felt that if Vyse's private journal could be found and examined, then the truth of Walter Allen's logbook account regarding the story passed down by his great-grandfather Humphries Brewer might be found somewhere in its pages, that we might find the truth of a story that seems to have been entirely expunged in Vyse's "official" account of his operations at Giza.

In short, if Brewer *had* been with Vyse in Egypt in 1837, as Allen's logbook tells us, then it was perhaps possible that Vyse, although having eradicated all traces of Brewer's presence from his published account (as a result of their dispute) may have left entries of Brewer's name and activities in his private journal. This was my thinking, and if it turned out to be correct, then it might at least offer a means to corroborate Allen's

controversial logbook entry from 1954 that indicated a fraud having been perpetrated by Raven and Hill.

So, in March 2014, I set about looking for Vyse's private journal, his field notes written during his operations at Giza. Thanks to the Internet, it did not take very long to locate the document. Over the years I had halfheartedly searched for this document but had always come up empty-handed (as had Alford). On this occasion the whereabouts of this nearly 180-year-old private journal presented itself: the Centre for Buckinghamshire Studies in Aylesbury, England (fig. 13.1), about four hundred miles from my home in Glasgow. So my wife, Louise, and I would have to drive a round trip of eight hundred miles (1,288 kilometers) to have a look at Vyse's archive.

We set off on a beautiful spring morning, full of excitement at the little adventure that lay before us, not knowing where it would take us or, indeed, if we would find anything at all of any great relevance to our quest. However, when we finally arrived at the archive center we were not to be disappointed, finding in Vyse's private notes much more than we had ever bargained for.

Fig. 13.1. Logo for the Centre for Buckinghamshire Studies, Aylesbury, England, where Vyse's private journal is held in the family archive (Image: Scott Creighton)

Vyse's private handwritten journal consists of around six hundred pages of yellowing, folded foolscap pages (written on both sides), tied together in a bundle with a thin white ribbon and all contained within two rather unremarkable card folders. Although the ink on some of the pages is perfectly clear, on many others it is exceedingly faint, browning with age.

On many pages the ink from the reverse side of the thin paper would "ghost" through the page, making it somewhat difficult to read. But this was the least of our problems with the document, as a quick perusal of some of the tattered, dog-eared pages would soon prove.

Vyse's handwriting is almost impossible to read, a scrawling, erratic script where many words are contracted or expanded and where the same letter can often take a quite different form depending on where it appears in a particular word or sentence, and on occasion, some of his words would be abbreviated. And this is to say nothing about a number of his words being quite archaic and rarely used in modern English. I had experienced doctor's prescriptions that were far easier to read than Vyse's execrable pages. It is also worth mentioning here that every single page—all six hundred or so of them—bears a long vertical line running from top to bottom through the middle of the page, as have many of the drawings made by Vyse. One can only presume that these "strikethrough" marks were created some years later when Vyse was using his handwritten journal as source material while writing his books.

In consideration of these difficulties, we sought permission from the library to take digital photographs of the journal pages so that Louise and I could take them home and analyze them at our leisure. Fortunately this wasn't a problem (so long as we didn't use flash photography).

So, for the next two days, Louise and I set about the not insignificant task of photographing each and every page of Vyse's handwritten journal, along with some other material in his archive, which included some family letters. The sheer magnitude of the task wasn't lost on us, and we quickly realized that finding anything significant within these intractably obscure pages could take months, if not years. (Indeed, a clear reference to the name Brewer has not, as yet, been found in Vyse's private journal, although a few possible occurrences that may very well be the name Brewer have been identified, but at the time of this writing, they have not been confirmed by handwriting experts.) It didn't help our task, either, that upon returning home we discovered that a sizeable number of our photographic images were of insufficient quality to make a proper analysis.

But massive as this undertaking was, it always seems to be the case that just when your research seems to have hit the buffers, the "library angel" appears and hands to you exactly what you need, just when you need

it—which turned out to be the case here. The gods of serendipity appeared to be on our side.

MORE CARTOUCHE ANOMALIES

Hour after hour we had been turning and photographing the delicate pages, seeing nothing before us but an endless, virtually meaningless scrawl. But then, as Louise turned one of the pages for me to photograph, I noticed that it had some hieroglyphs written on it. Very few pages had such content, so these markings easily caught the eye. But these weren't just any old hieroglyphic marks that Vyse had written on this page; it was the *cartouche of Suphis/Khufu.*

Resting the camera on the table, I took a closer look at the cartouche that Vyse had drawn on the page. Although drawn fairly small, it was clear enough to see that there was something odd about its composition, which I pointed out to Louise; she agreed. We continued photographing the dog-eared pages, and several pages farther on we found a *second* Suphis/Khufu cartouche drawn by Vyse, and just like the first cartouche that we had found earlier, there was something very peculiar about its composition. Both of the cartouches drawn by Vyse in his private journal were different in a very subtle but highly significant way from the actual cartouche we find painted on the gabled roof of Campbell's Chamber. There was something clearly *missing* in both renderings of the cartouche in Vyse's private journal, something that is clearly *not* missing from the actual cartouche that these two cartouche drawings in his private diary were supposedly copied from.

Louise and I looked at each other in stunned silence as the realization and enormity of what we had found gradually sunk in, for before us, on these two pages in Vyse's private journal, was compelling evidence that the cartouche of Suphis/Khufu must, in fact, have been forged by him—just as a number of researchers and writers over the years had suspected. To say that we were dumbstruck by what we had uncovered would be an understatement; here we had found in the colonel's own diary, in his own hand, evidence that proved, beyond reasonable doubt, that Vyse had perpetrated the hoax of all history.

Having returned to our hotel late that evening, not a little exhausted from our day's efforts, we sat and stared in bemused silence at the two digital pages on our laptop screens, struggling to wrap our minds around their game-changing implications. The irony of what we had found was not lost on us. Here we were, barely able to read a few words of Vyse's early nineteenth-century handwriting, yet the ancient Egyptian hieroglyphics, which he had so meticulously copied into his private journal, revealed to us the truth of the disputed inscriptions in the Great Pyramid, a truth that many have been seeking for decades, if not longer—that they had been faked.

JOURNAL ENTRY, MAY 27, 1837

On May 27, 1837, Vyse and his team finally managed to blast their way into the final relieving chamber of the Great Pyramid, which Vyse had already named Campbell's Chamber in honor of the British consul to Egypt, Colonel Patrick Campbell. In his journal entry of that day, Vyse drew the cartouche of Khufu (fig. 13.2).

Fig. 13.2. Artist's impression of Khufu cartouche (enlarged) presented in Vyse's private journal entry of May 27, 1837 (Image: Scott Creighton, based on original by Colonel Vyse)

Around this cartouche Vyse wrote a highly incriminating piece of text, which will be presented later in this chapter. For the moment, however, concentrating on the cartouche itself we observe a very odd anomaly: the disc within the cartouche (fig. 13.2, *far right*) presents two small dots side by side where there should, in fact, be three stacked horizontal lines. The two small dots under the snake or horned viper sign attest to this being the cartouche (ostensibly) from Campbell's Chamber, as does the text Vyse wrote around this cartouche.

The disc within the cartouche drawn on this page is categorically *not* the same disc that we observe within the *actual* cartouche we find in Campbell's Chamber today. Why Vyse would not have placed three stacked lines within the disc is a complete mystery, especially so when we consider the appearance of his *second* private journal drawing of the Suphis/Khufu cartouche in Campbell's Chamber, made just more than two weeks later on June 16, 1837. In his second rendering of the Khufu cartouche Vyse now draws the cartouche disc entirely devoid of *any* internal markings—no parallel dots or stacked horizontal lines, just a plain, blank disc (fig. 13.3).

In this journal entry of June 16, 1837, Vyse drew a couple of other Khufu cartouches in the margin at the foot of this page, which we will consider shortly. As we can see in figure 13.3, Vyse makes a small note to the right of this cartouche that reads "in Campbell's Chamber." There can be no mistake; this cartouche, now with just a *blank* disc, is what Vyse in June 1837 states was present at that time in Campbell's Chamber. As is easily observed, the disc within the cartouche of this drawing of June 16 clearly differs from Vyse's earlier drawing of May 27, which presented two small dots within the disc, while *both* drawings clearly differ to what we *presently* find in the chamber, which is a disc with three stacked horizontal lines.

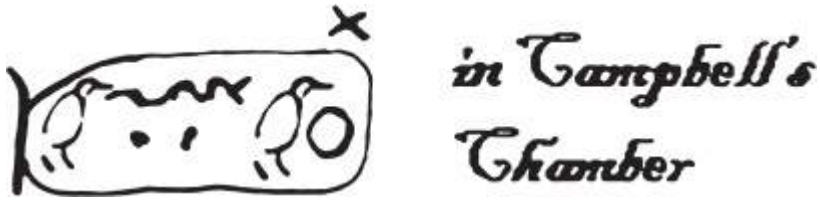

Fig. *13.3. Artist's impression of Khufu cartouche (enlarged) with text as presented in Vyse's private journal entry of June 16, 1837 (mid page). Note that the disc within the cartouche is entirely devoid of the stacked horizontal lines; it is blank. Vyse notes to the right of this cartouche " in Campbell's Chamber." (Image: Scott Creighton, based on original by Colonel Vyse)*

How can this be?

It is perhaps worth noting here that the cartouche disc with the two small dots (fig. 13.2) might have resulted from ink droplets inadvertently spilling from Vyse's fountain pen into the disc. Another possibility to explain these dots may be related to the positioning of this cartouche

graphic, which has been written right on the fold of the page. Though it is not shown in figure 13.2 (for the purposes of clarity), this cartouche has been struck through by Vyse with a fountain pen (fig. 13.14), like almost all other graphics in his private journal. It is possible that having struck through the page with a vertical line and then likewise the cartouche graphic, Vyse then simply folded the page, thereby causing small ink spots from his editing strike-through process to transfer elsewhere onto the page (i.e., into the area of the cartouche disc).

Having analyzed the position of all of these inked lines, it seems quite possible that this is how these two small dots of ink may have found their way into the cartouche disc on this page. In other words, it is quite probable that Vyse had originally drawn the cartouche disc of May 27 not with two small dots at all but rather with a blank disc, just like the blank disc he drew in the later cartouche disc of June 16. However, regardless of the actual truth of this, what is perfectly clear is that Vyse, on *two* quite separate occasions, did not copy the Khufu cartouche disc into his private journal as it actually appears today in Campbell's Chamber—a strange anomaly indeed, and one that surely demands an explanation.

JOURNAL ENTRY, JUNE 16, 1837

Let us now turn our attention to Vyse's private journal entry of June 16, 1837, which, as we will see, reveals other highly incriminating evidence pointing to fraudulent activity. Figure 13.4 reproduces an artist's impression of the relevant page from Vyse's private journal.

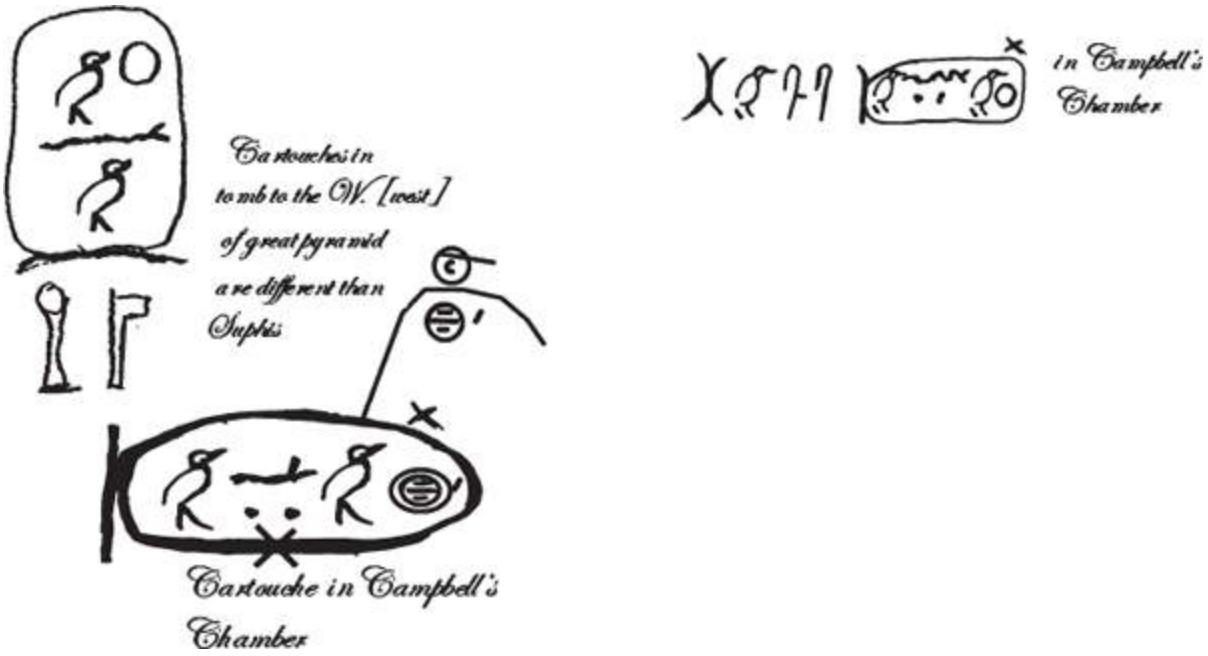

Fig.13.4. Artist's impression of Vyse journal entry of June 16, 1837. (Only the relevant information is presented here. There is much more text on the original page of Vyse's journal than is shown in this reproduction.) Note that in the original graphic in the journal the Khufu cartouche (top right) has a single diagonal editing stroke through it (as have all the journal graphics), which, in the interests of clarity, has not been reproduced here. (Image: Scott Creighton, based on original by Colonel Vyse)

This entry from Vyse's private journal contains a number of odd and curious features. We see that the colonel has drawn a number of different circles with curious marks beside them; he has scored some things out, has placed an *X* in several locations, and has made a number of small horizontal and vertical strokes. We notice also that there are four circles drawn on the page that have just a *single* circle outline, whereas the circle in the Khufu cartouche at the foot of the page (in the bottom-left margin of Vyse's journal) is the only circle that has a *double* outline (i.e., a circle within a circle), see figure 13.5 below.

But, as noted above, the most striking anomaly immediately observed on this page is the Khufu cartouche at the top right. The disc within this cartouche is entirely devoid of the stacked horizontal lines that we see in the cartouche disc at the foot of the same page (and in the cartouche that we actually find in the chamber today, which carries the three stacked lines within the disc).

Fig. 13.5. Artist's impression of Khufu cartouche as presented in Vyse's private journal entry of June 16, 1837, at the foot of the page. Note that the disc in this cartouche has three small, stacked horizontal lines. Vyse writes below this drawing, "Cartouche in Campbell's Chamber." (Image: Scott Creighton, based on original drawing by Colonel Vyse)

With these two slightly different cartouche images on this same page of Vyse's private journal, we are presented with a clear contradiction. As noted above, beside the Khufu cartouche with the *blank* disc (fig. 13.4, *top right*) Vyse writes alongside, "in Campbell's Chamber," and then below the cartouche with the *striated* disc (fig. 13.4, *bottom left*), he also writes, "Cartouche in Campbell's Chamber."

So what is going on here? How are we to make sense of this? Given that there is only *one* cartouche of Suphis/Khufu in Campbell's Chamber presenting a disc, how can Vyse write in his journal that *both* of these slightly different cartouches are present in the chamber (i.e., a cartouche with a blank disc *and* a cartouche with a striated disc)? And what on earth are we to make of all the peculiar marks we see in this journal entry? In short, why would Vyse draw the Suphis/Khufu cartouche in his journal, on two separate occasions, differently from what we actually observe today in this chamber?

A number of possible reasons have been proposed to try to explain this anomaly. Perhaps Vyse simply did not observe the stacked horizontal lines in the disc when he first observed the Suphis/Khufu cartouche in the chamber on May 27, 1837, especially since he would only have had light from a candle or an oil lamp. While this is possible, it seems highly unlikely for a number of reasons.

1. Vyse states quite categorically in his published book that Campbell's Chamber, in which the Suphis/Khufu cartouche was found, was "minutely examined" for marks. If the chamber was minutely examined, then it seems unlikely that Vyse would have missed these marks within the cartouche disc.
2. Vyse manages to observe the two small dots under the snake sign of the cartouche, so one must presume that having observed this very small detail (perhaps using only a candle or oil lamp), he would have easily observed the much larger and more prominent lines within the disc.
3. Vyse, by this time in his operations, had already blasted his way into three other chambers below Campbell's Chamber, and in those other chambers he found several cartouches of Khnum-Khuf (Khufu's full name), *all* of which presented a disc with center marks of some kind and all of which were meticulously recorded by Hill in his facsimile drawings. As such, when Vyse finally opened Campbell's Chamber (the highest and last chamber), his previous experience from the chambers below would surely have had him fully anticipating finding the Khufu cartouche disc with similar center markings—dots, lines, or whatever. Given his experience of the other cartouche discs with center markings found in the chambers below, finding the Khufu disc entirely devoid of any marks would most surely have piqued Vyse's curiosity, and he would most certainly have had it double-checked.
4. As we have previously noted, there were *two* such Khufu cartouches drawn by Vyse in his private journal—one entry on May 27 and another on June 16, 1837—both *without* the stacked lines. Are we to believe that Vyse wrongly copied this cartouche disc on *both* occasions? Furthermore, on May 30, Vyse's assistant Hill was tasked by Vyse to make a facsimile copy of the Khufu cartouche in Campbell's Chamber. Hill's drawing (which I viewed in the British Museum) most certainly contains the three lines in the cartouche disc, yet on June 16 (more than two weeks *after* Hill's drawing had been completed) Vyse *again* enters the Khufu cartouche into his journal with just a plain disc. Why did Vyse make a "mistake" and then repeat the same mistake even though Hill's facsimile would (presumably by this time) have shown him the correct spelling (i.e., a disc with three

internal stacked lines)? Was Hill's drawing of the Khufu cartouche disc, at this time, *also* devoid of the three stacked lines?

Perhaps, as some have further suggested, Vyse was merely making a rough note of the cartouche in his journal, perhaps making the disc too small for him to be able to insert the three stacked horizontal lines. Again this proposal, while possible, is highly unlikely for the following reasons.

1. As previously noted above, Vyse was detailed and meticulous enough to draw the two small dots under the snake glyph (which are actually a mistake and not part of Khufu's name). If this was merely a rough drawing, as some have suggested, why would Vyse be so meticulous in his recording of this tiny detail under the snake sign on two occasions and then be so casual and fail to record the much more obvious detail within the disc sign on two occasions? That makes little sense.
2. Vyse would have been fully aware that he would be using his written journal (including the various drawings he made therein) as the basis from which he would write and publish his future book of his operations at Giza. As such, accuracy in recording these markings would have been of paramount importance to him, and such detail would naturally have been crucial to that accuracy—especially so given that Vyse was in no way a specialist in this field.
3. Failing to accurately copy fairly obvious details from the cartouche of a king could have caused serious interpretative consequences for scholars back in London, and Vyse would almost certainly have understood that. He would be unlikely to have a second chance at this; it would have been imperative to accurately copy the detail of these markings, particularly the cartouches, correctly the first time and to ensure that his own renderings were consistent with and corroborated those of Mr. Hill to prevent any confusion afterward.
4. While it is true that the two Khufu cartouche discs drawn by Vyse on May 27 and June 16 are very small, and, as such, it would have made it difficult to clearly present three stacked horizontal lines within them, it is equally possible that these two discs were rendered in this small size simply because Vyse had no intention of inserting any stacked lines within either of the two cartouche discs because the horizontal

lines simply did not exist in his master source. An analysis of these discs on the relevant pages of Vyse's private journal shows that there was sufficient space on each page for Vyse to have drawn a much larger cartouche and/or disc into which he could have easily placed three stacked lines. That he didn't use the available space on the page to draw a larger disc to accommodate stacked lines suggests that there were no such lines to be accommodated, hence that is why he drew the smaller blank disc.

5. If this was merely a rough drawing of the cartouche Vyse was jotting into his journal and of no real importance to him, why then would he place a corrective mark (the small X sign) above the blank discs to indicate that the discs had been wrongly copied? Indeed, why place an X mark here at all? Surely it would have been more natural to *correct* the perceived "mistake" either by placing the missing lines into the existing blank disc or by drawing another disc (with stacked lines) in place of the X mark? This odd edit mark seems more indicative of Vyse having copied this disc *correctly* (i.e., with no striations) from his secret source (hence his reluctance to actually change it here) but now, having found other examples of the Khufu disc *with* the horizontal lines, believes his original source to be wrong or incomplete, thus the simple X marks to indicate such.

In short, it would have been vital to Vyse that all of these inscriptions were copied as accurately as possible by himself, Hill, and Perring. Indeed, the importance Vyse placed on this accuracy could not be more clearly demonstrated than by his seeking of a number of independent eyewitnesses (including Sir Robert Arbuthnot, Joseph Cartwright Brettell, and Henry Raven) to attest to the accuracy of many of Hill's facsimile drawings, although, curiously, only Hill himself attested to the accuracy of the Suphis/Khufu gang name drawings. Bizarrely, not even Vyse added his signature to verify the likeness of these particular facsimiles made by Hill.

The simple truth of all of this may well be that when Vyse and his closest assistants first entered Campbell's Chamber there was no Khufu cartouche present at all (nor any Khnum-Khuf cartouches in the lower chambers). *Some* glyphs may well have been present (as the eyewitness account of Walter Allen's great-grandfather seems to suggest) but not the

gang names bearing the royal inscriptions. From what we have learned of events elsewhere in this book, it seems that Vyse and his closest confidants placed these various gang names into these chambers themselves, copied from a master source they had found elsewhere outside the pyramid, a source that—fatefully—presented the Khufu cartouche with just a plain blank disc, which is why Vyse presented the cartouche disc from Campbell's Chamber without any horizontal lines (on two occasions) in his private journal.

But something was about to change in Vyse's thinking, and it is something that explains the contradiction we find in his private journal entry of June 16; that is, how the one Suphis/Khufu cartouche in Campbell's Chamber could have both a blank disc *and* a striated disc at the same time. It seems that around this time Vyse had a change of mind and slightly modified the hitherto blank disc he had placed in Campbell's Chamber by adding to it the three stacked, horizontal lines. This change appears to have been prompted by some new critical information he had received earlier in June from one of his assistants, Perring.

THE TWO SPELLINGS OF SUPHIS

The crucial point to understand here is that *both* these spellings of the Suphis/Khufu name present in Vyse's journal entry of June 16 are, in fact, *correct.* This is to say that, according to mainstream Egyptology, the name Khufu can be written with either a striated disc with any number of stacked horizontal (or even diagonal) striations *or* with just a plain blank disc. Indeed, numerous examples of these various spellings exist in the archaeological record, which probably explains why Vyse originally believed the Khufu/Suphis name should be spelled with just a *blank* disc, for that is probably how the disc in the Suphis/Khufu cartouche in his master source appeared (although the Khnum-Khuf examples would have had internal markings within the disc).

However, in 1837 this fact wasn't yet fully understood, and when Perring presented to Vyse (on June 2) information that showed a slightly different spelling of Suphis/Khufu (i.e., a cartouche disc that wasn't blank but contained three horizontal lines), this new information created an ambiguity and caused Vyse to have doubts over which was the correct disc

to use; he wouldn't have known then what we know today, that a blank disc is just as acceptable for the spelling of Khufu as a disc containing striations. This doubt is clearly expressed in Vyse's June 16 journal entry, where a series of edits and annotations are clearly observed on this page.

Vyse would have well understood that if he had sent a facsimile copy of the Khufu cartouche back to London with what turned out to be the incorrect spelling, he could have been very quickly uncovered as a fraudster and his "discoveries" consigned to ignominy. There was much at stake here. If he could just be the first to empirically connect the Great Pyramid to Suphis/Khufu, then his name would be immortalized in history. He had to get the Khufu cartouche right. Should the disc be blank, or should it have internal lines like those in the Khnum-Khuf cartouche (the full name of Khufu)?

The fact that the plain-disc version of the Khufu cartouche and the striated-disc version *both* exist in the archaeological record leads us, as previously stated, to an intriguing possibility: Might it be that Vyse originally found an example of a Khufu cartouche (his master source) with just the *plain* disc, which he copied into his journal (and presumably the Great Pyramid), believing this version of the Khufu cartouche to be the *only* (thus correct) spelling of the king's name? And did Vyse discover some time later that, in fact, there were examples of the Khufu cartouche with striated discs, leading him to believe (wrongly) that the plain disc version he had originally found (and had placed in the Great Pyramid) was perhaps a disc that was *unfinished* by the ancient Egyptian scribe who originally created it and that to render the Khufu name fully and correctly required the plain disc to be completed by adding horizontal striations? There is some compelling evidence from Vyse's journal that this may well have been his thinking.

As can be seen in his private journal entry of June 16, Vyse has drawn one vertical Suphis/Khufu cartouche with a blank disc (fig. 13.4, *top left*) and also *two* horizontal Suphis/Khufu cartouches, *both* of which he states are from Campbell's Chamber, yet they each have a slightly different disc within the cartouche.

However, because we know there is only *one* complete Khufu cartouche in Campbell's Chamber, both discs on this journal page cannot be right. So it is here, in his private journal, that we find the very essence of Vyse's doubt, his contradiction, and his deliberation; here on this journal

page we observe Vyse contemplating a necessary change to what he once believed was the correct spelling of Khufu. The original plain-disc version of the cartouche that he had written twice into his diary and had copied into the Great Pyramid actually required three horizontal lines to be added—or so it seems he believed. It is right here on this page of Vyse's private journal that we find the evidence that lays bare the hoax of all history.

Why should Vyse be having such deliberations at all—and why now? It was not Vyse's job to try to interpret the painted marks that he supposedly found in these chambers; that was the job of the experts back in London. Vyse's responsibility was to explore and record any important findings. This controversial diary entry had been made some three weeks *after* Vyse had opened and entered Campbell's Chamber. What was it that had occurred to bring Vyse to revisit the cartouche in the Great Pyramid weeks after its supposed discovery? Why was he suddenly starting to question the spelling of this cartouche? A clue is given in the journal entry of June 16 when Vyse writes:

> *Cartouches in tomb to the W. [west] of Great Pyramid are different than Suphis.* [1]

The above comment made by Vyse imparts to us two very important pieces of information.

1. Clearly from this comment we can logically deduce that Vyse already knew (or *believed* he knew) how the Suphis/Khufu cartouche *should* be written, because he could recognize ones that were different from it, and that he knew this information long before Hill's facsimile drawing of it had been sent to the experts back in London for verification of the Suphis/Khufu name.
2. At the same time, Vyse had realized some Khufu cartouches were spelled slightly differently (with lines in the disc) and, for some reason, was interested in this spelling variation enough to make a personal visit to the Tomb of Iymery to study this difference for himself.

But what had prompted Vyse to make this visit to this tomb at such a late date? Was it perhaps that he was up against a deadline, that in just a few days' time a cargo ship bound for London would be setting sail from the port at Alexandria, and Vyse wanted Hill's facsimile drawing of the Khufu cartouche aboard that ship, spelled correctly, of course? If so, then Vyse had to make absolutely sure that the cartouche was correctly written before sending off Hill's facsimile copy of it to London, thus his late visit to the Tomb of Iymery to observe the different Khufu spellings in hopes that they might perhaps be explained.

As noted above, in his journal Vyse writes in the margin of this page on June 16 that the Suphis/Khufu cartouches (observed at the Tomb of Iymery) were different from the Suphis/Khufu cartouche he had drawn on that same page (fig. 13.4, *top right*) where he writes, "in Campbell's Chamber." However, on June 2 (two weeks earlier) he had actually been sent drawings of the Khufu cartouches from this tomb by Perring, showing striated discs (fig. 13.6). So Vyse had known for two weeks of the differently spelled Khufu cartouches in this tomb.

Why didn't Vyse simply accept Perring's drawings of these Khufu cartouches, which were sent to him on June 2? Did Vyse perhaps think that Perring had made a mistake in his drawings, thereby forcing Vyse to go to this tomb to double-check the spelling of these cartouches for himself? Why would this detail have been so important to Vyse?

In this entry to his journal, Vyse is clearly making a comparison with one set of Khufu/Suphis cartouches (in the Tomb of Iymery) with the Suphis/Khufu cartouche "in Campbell's Chamber" he had drawn on this page of June 16 (fig. 13.4). Indeed, this comparison between cartouche spellings seems to have been the single objective of Vyse's visit to this tomb. Given this particular objective then it is surely reasonable to expect that Vyse would, at the very least, have made absolutely sure that he had made an accurate drawing—in every detail—of the cartouche that was "in Campbell's Chamber" on this page of his journal to take with him to the Tomb of Iymery to make his comparison with the other cartouches there. Indeed, making an accurate drawing of the cartouche that was "in Campbell's Chamber" would have been absolutely *essential* to the viability of any comparative study Vyse hoped to make, and, as such, it is simply inconceivable that the colonel would not have made, on this page, an

accurate rendering of the Suphis/Khufu cartouche that was, at that time, "in Campbell's Chamber." As such, we are surely obliged to accept that Vyse's drawing of the *plain disc* in the cartouche on this page of his private journal was wholly intended as this is how this disc *was* painted "in Campbell's Chamber" at that time in 1837—with *no* horizontal lines. And it is entirely contrary to what we find in the chamber today.

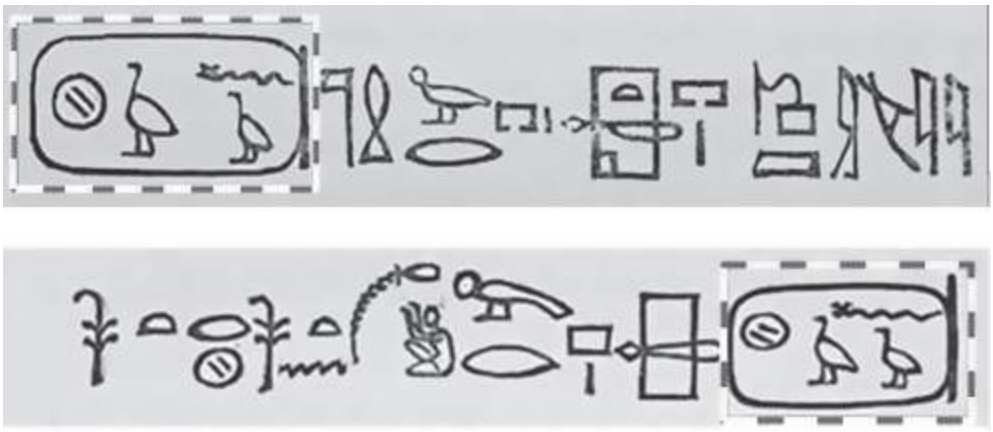

Fig. 13.6. Khufu cartouches with striated discs from the Tomb of Iymery (Image: Vyse, Operations Carried On at the Pyramids of Gizeh in 1837*, vol. II, 7–8)*

This comment by Vyse is quite revealing in another way. It stands to reason that if the Suphis/Khufu cartouche "in Campbell's Chamber" already contained a disc with striations (but he had simply overlooked placing the lines within the disc on this page), then Vyse, at this time, would surely not have written in his journal that these cartouches he found in the Tomb of Iymery *with* disc striations (fig. 13.6) were *differ ent* from the Suphis/Khufu "in Campbell's Chamber" but, rather, that they were the *same.*

So, it is with this casual remark in his private journal that Vyse betrays the truth of the situation. In short, if the cartouches at the Tomb of Iymery contained striated discs and were described by Vyse as "different" from the Suphis/Khufu cartouche "in Campbell's Chamber" (copied onto the midpage of his journal), this implies, logically, that the disc of the Suphis/Khufu cartouche in the Great Pyramid must, at that time, have been *blank* —which is not how it appears today.

So, having observed and verified the different spelling of the Suphis/Khufu cartouche disc from the Tomb of Iymery for himself, Vyse now acts; he sets about making the necessary changes. The following

diagrams present a proposed sequence of events, of journal entries, edits, and annotations made by Vyse on the June 16 page of his private journal as he learned the truth of the alternative Suphis/Khufu spelling.

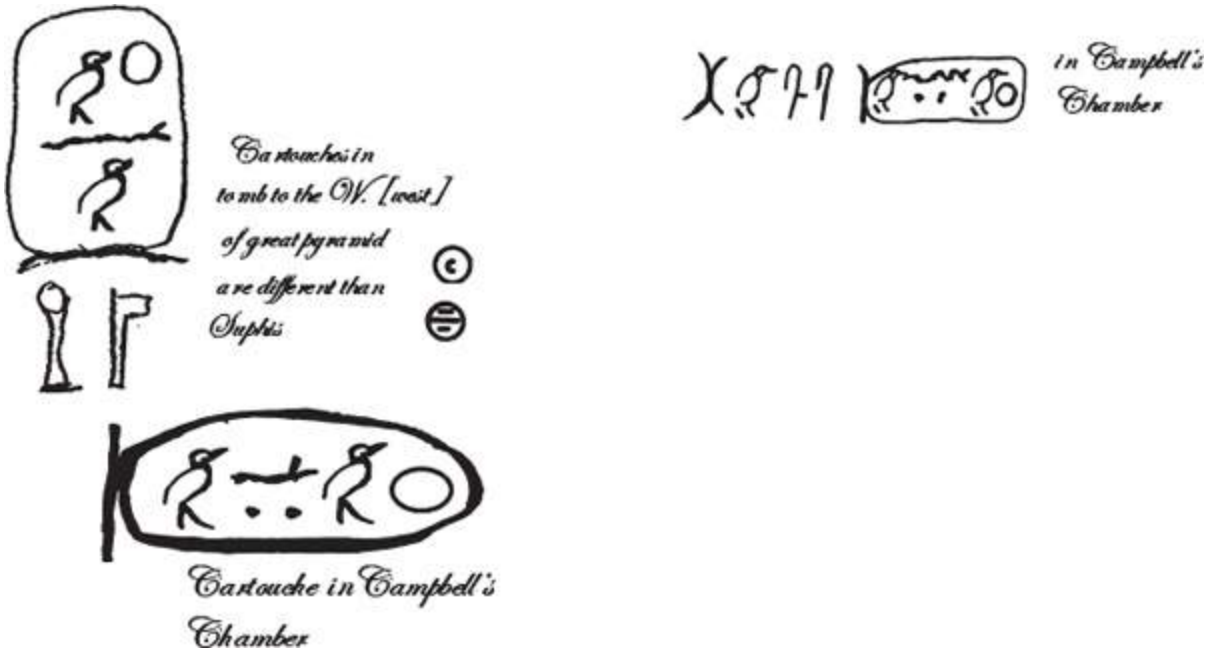

Fig. 13.7. Reproduction of proposed editing sequence of Vyse's journal entry of June 16, 1837. Here we see both horizontal cartouches (master and working copies), both with blank discs and both, naturally, labeled as being in Campbell's Chamber. There is no contradiction between the two horizontal cartouches on the page at this stage of the journal entry. (Image: Scott Creighton, based on original drawing by Colonel Vyse)

First of all, Vyse would have drawn onto this page of his private journal the gang name including the Khufu cartouche (from his master source) with just the plain disc (fig. 13.7, *top right*), writing alongside it "in Campbell's Chamber" (the drawing he would take to the Tomb of Iymery to make his comparative study). We can deduce that this cartouche was likely placed on the page first as it is placed higher up in the main body of the page than the other cartouches (which are drawn in the left margin). We can infer this because the ink used to draw this gang name is much darker than the body text of the page (made with a different pen/ink) and is the same as the darker ink used to draw the cartouches in the page margin, which have clearly been drawn before the main body text of the page as this text wraps around the margin drawings, implying that these drawings were placed onto the page before the main body text.

Next, Vyse creates an enlarged *working copy* of his master cartouche in the space at the bottom-left margin of the page; this working copy of the Khufu cartouche will receive many revisions. At this point Vyse copies the disc in the working copy *exactly* as it is in the master (i.e., a disc *without* any of the horizontal lines). Underneath the working copy he writes, "Cartouche in Campbell's Chamber" (fig. 13.7, *bottom left*).

So, at this point there is no contradiction between the two horizontal cartouches on the page as one is merely an enlarged (working copy) version of the other (master), and at this point in his deliberations, this *was* the cartouche in Campbell's Chamber (i.e., with just a plain disc). Note also that at this point all the discs would have been drawn on the journal page with just a *single* disc outline. (There is really no need to draw a disc with a double outline.)

But now, armed with his new information from the Tomb of Iymery, Vyse realizes that this version of the Khufu cartouche is wrong and places a large *X* under his working copy at the bottom of the page, marking it "wrong" (fig. 13.8).

More specifically, however, Vyse then places a small *X* above each of the plain discs of his master cartouche (fig. 13.9, *top right*) and working-copy cartouche (fig. 13.9, *bottom left*); the blank discs are incomplete and thus "wrong."

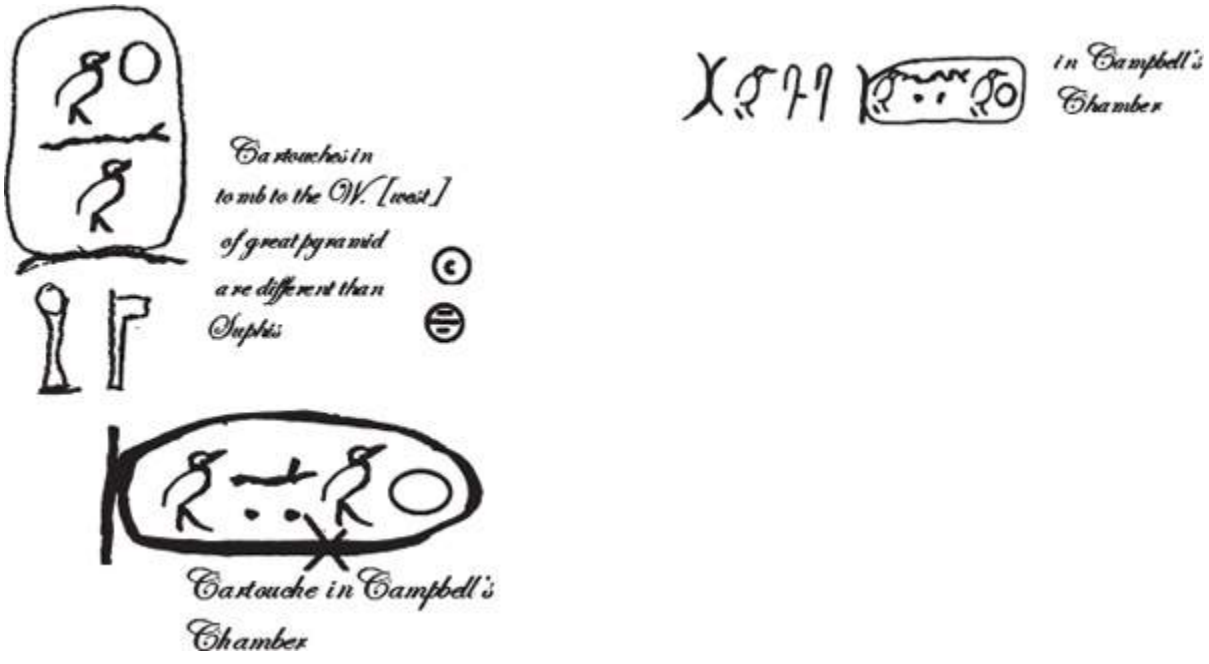

Fig.13.8. Reproduction of proposed editing sequence of Vyse's journal entry of June 16, 1837. Vyse places an X through the base of his working copy of the Khufu cartouche (bottom left), marking it "wrong." (Image: Scott Creighton, based on original by Colonel Vyse)

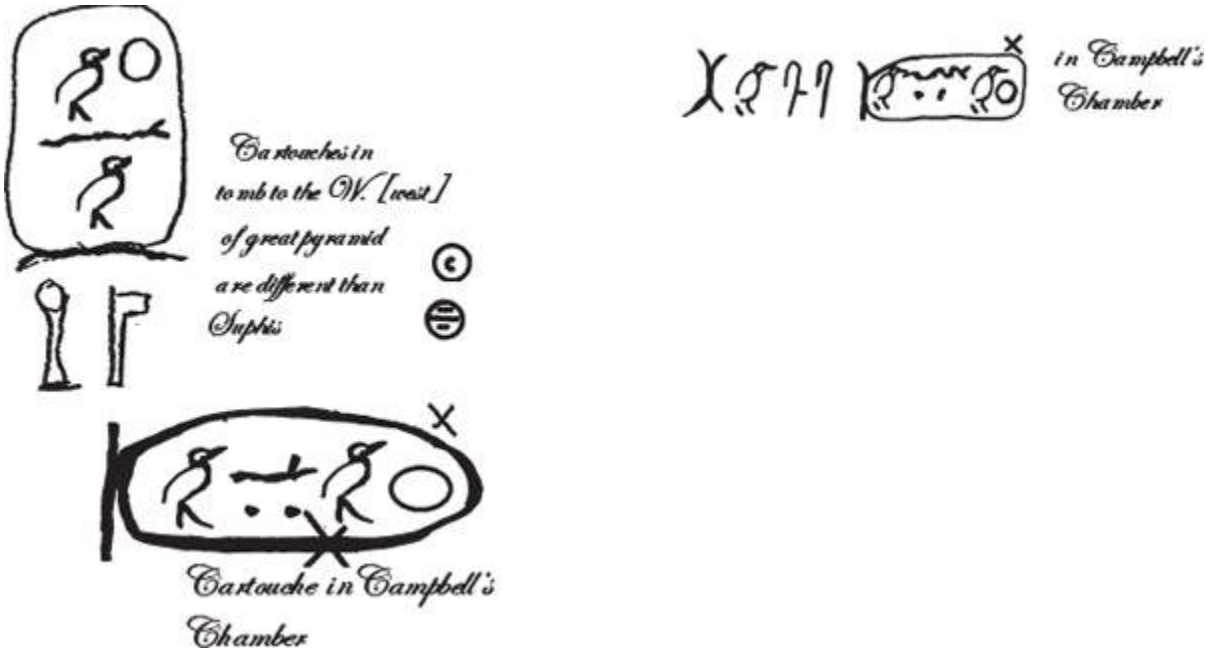

Fig. 13.9. Reproduction of proposed editing sequence of Vyse's journal entry of June 16, 1837. Vyse now places an X above each of the blank discs in his master and working copies of the Khufu cartouche, marking the blank disc "wrong." (Image: Scott Creighton, based on original by Colonel Vyse)

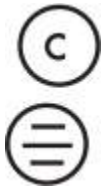

Fig. 13.10. Artist's impression of detail from Vyse's journal entry of June 16, 1837. Close-up of small discs on journal page. (Image: Scott Creighton, based on original by Colonel Vyse)

For his next edit, Vyse has a decision to make. If we look closely at his private journal page we see that he has drawn two smaller discs (fig. 13.10) just above the working-copy cartouche at the foot of the page.

It appears that the two small discs on this page of Vyse's journal represent what Vyse believed were the only two options that could be placed within the blank disc of his working copy of the Khufu cartouche.

But which one should he use? So we observe here another aspect of Vyse's dilemma.

In the Tomb of Iymery we find that there is a vertically drawn Suphis/Khufu cartouche (fig. 13.9, *top left*), with a blank disc. But having now observed Khufu cartouches with the striated discs at this tomb (fig. 13.6, *dashed boxes*), it is conceivable that Vyse would now have believed that the Khufu cartouches with the blank disc he observed in this tomb (and elsewhere) were actually *incomplete discs,* because, in 1837, it was believed (incorrectly) that a blank disc could *only* represent the god Ra, which, by simple deduction, could not then be the correct disc to use for Khufu's name; it had to be a different disc, a disc with internal markings of some kind that would clearly differentiate it from the plain disc of the god Ra.

But what markings should be used? If Vyse believed the blank Suphis/Khufu disc was merely an unfinished disc, what then should be placed within the blank disc to render it the correct spelling for Suphis/Khufu? The upper disc in figure 13.10 appears to show a disc with a partially completed center dot—a circumpunct. Vyse would most surely have known that a disc bearing a center dot was, along with a plain blank disc, also used to represent the god Ra and, as such, could not be the correct disc to use for the spelling of Suphis/Khufu. Deciding this, Vyse then places a small horizontal score through this disc (fig. 13.11), discounting it.

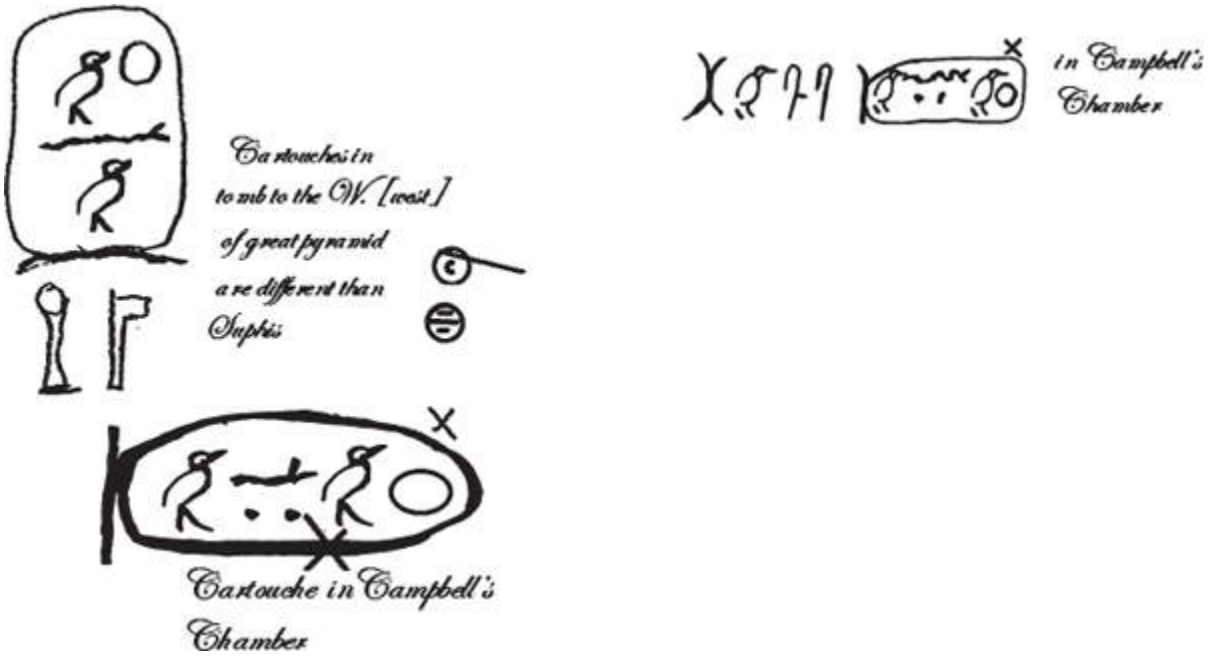
Cartouches in tomb to the W. [west] of great pyramid are different than Suphis
Cartouche in Campbell's Chamber
in Campbell's Chamber

Fig. 13.11. Reproduction of proposed editing sequence of Vyse's journal entry of June 16, 1837. Vyse places a small stroke through the small upper disc, discounting it as the correct disc for the Suphis cartouche. (Image: Scott Creighton, based on original by Colonel Vyse)

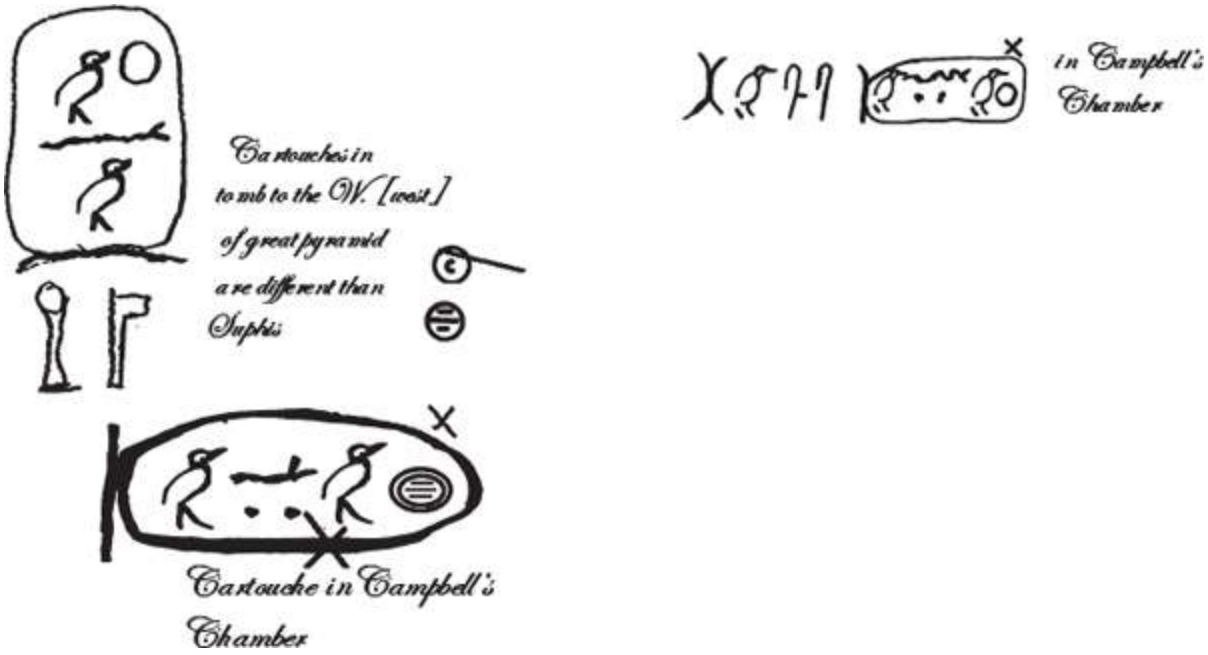

Fig. 13.12. Reproduction of proposed editing sequence of Vyse's journal entry of June 16, 1837. Vyse now places a striated disc inside the blank disc of his working-copy cartouche (lower left). (Image: Scott Creighton, based on original by Colonel Vyse)

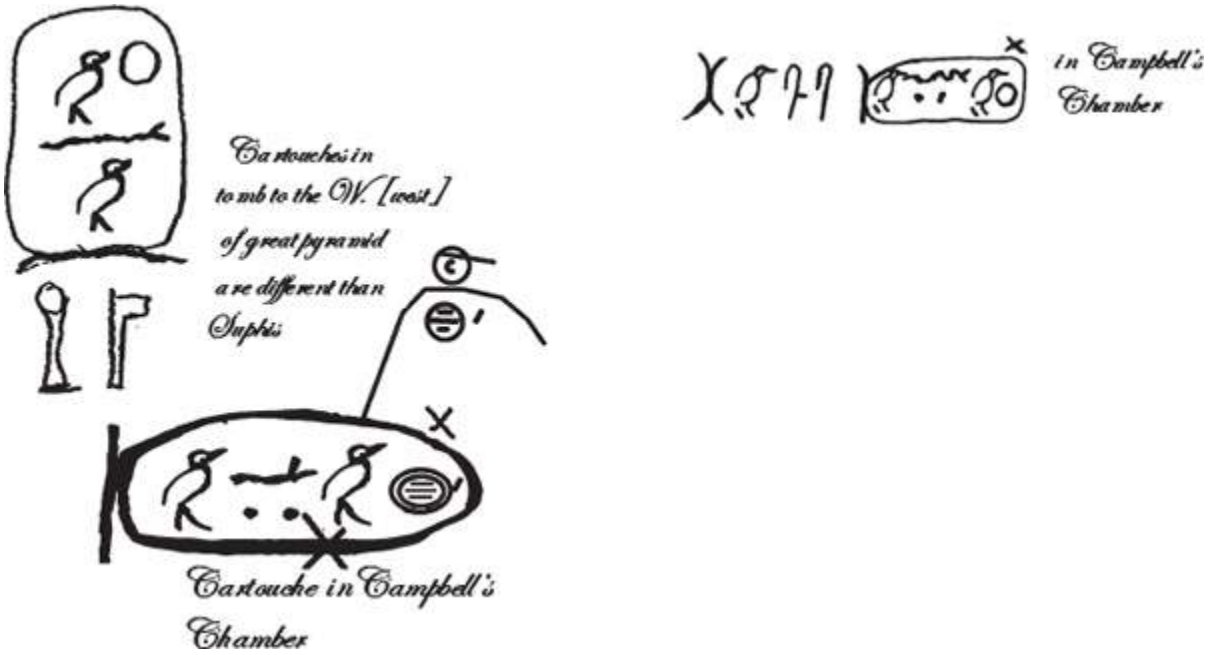

Fig. 13.13. Reproduction of proposed editing sequence of Vyse's journal entry of June 16, 1837. Vyse now "encloses" the striated disc with a curved line and places a small vertical stroke beside the two striated discs, making a cross-reference to his change. (Image: Scott Creighton, based on original by Colonel Vyse)

Because the correct disc for the Suphis/Khufu name, according to what Vyse would have understood and believed in 1837, could not be a blank disc or a circumpunct (both of which Vyse would have believed at this time could only represent the god Ra), there was only one option remaining, and Vyse has also drawn this particular disc in his journal entry of June 16, a disc with three stacked lines, which he would have seen somewhere at the Tomb of Iymery (fig. 13.10, *lower disc*).

So now Vyse draws a second disc within the plain circle of his working-copy cartouche, and within this inner disc he places three striation lines (fig. 13.12, *lower left*).

Having now decided which disc to use and drawn this disc inside the hitherto blank disc at the foot of his journal page, Vyse then "encloses" his choice with a curved line and cross-references the change by placing a small stroke beside the two striated discs on the page (fig. 13.13).

The revision of the working-copy cartouche is now complete, and the revised cartouche (now with a lined disc) is ready to be placed in Campbell's Chamber; that is, three lines would now be added to the blank disc in the chamber cartouche (and, of course, a small update made also to Hill's facsimile drawing of the cartouche from May 30 before it is sent to London). It is worth noting here also that in my private discussions with Gorlitz and Erdmann, who, the reader will recall, visited Campbell's Chamber in 2013, they were able to tell me from their observations that the three lines within the disc of the Khufu cartouche have a slightly different color tone from the rest of the cartouche. This tone difference seems to indicate two slightly different paint mixes having been used; that is, one mix made on May 30 and a second mix with a slightly different tone (to add the disc striations) on June 16, 1837.

Having now made all the necessary changes and cross-references, Vyse neglects to remove the legacy and now redundant *X* marks on the journal page. He also neglects to remove or strike out the comment "in Campbell's Chamber" from his master cartouche, although a cartouche with a blank disc is no longer what is actually now present in Campbell's

Chamber. After Vyse's modification of the hitherto blank disc, the comment here of "in Campbell's Chamber" now becomes a contradiction. But these are merely legacy marks and comments of a "work in progress" for Vyse's eyes only. No one except Vyse was ever meant to see this journal page and learn the truth of his last-minute edits, so there would have been little imperative for him to remove the contradictions, the incriminating evidence, this page of his journal now presents.

There is, however, something of an irony to all of this. Had Vyse simply kept the plain disc in the cartouche in Campbell's Chamber (instead of believing that it was perhaps an unfinished striated disc and changing it), his deception would actually have been far more convincing, because, as previously mentioned, Egyptology now knows that the plain disc *can* in fact render the name Khufu and that a blank disc does not always invoke the name of the god Ra. But, as stated earlier, no one in 1837 fully understood that, so Vyse, in his ignorance of this fact, must have felt compelled to make absolutely certain of the name by adding the three lines into the disc, clearly differentiating it from the plain disc of the god Ra. Vyse, in his ignorance, overegged the pudding.

INSTRUCTING FRAUD

But who would actually place the cartouche (and its later edit) into Campbell's Chamber, and where exactly was it to be placed? This information presented itself to Louise and me only some time later, after we became accustomed to reading Vyse's extremely difficult handwriting style. As indicated earlier in this chapter, around the cartouche drawing in Vyse's journal entry of May 27, 1837, the colonel writes the following highly incriminating passage (as shown in fig. 13.14).

> *The chamber was 39 long, by 19.10 broad: as it was within "Campbell's Chamber May 27, 1837." "For Raven & Hill." These were my marks from cartouche [image of cartouche with plain disc] to inscribe over any plain, low trussing.* [2]

It is, first of all, perhaps worth mentioning here that a trussing is a triangular support for holding up a structure. The triangular gabled roof of

Campbell's Chamber supports the weight of the pyramid above and, in this regard, can be considered a trussing. And it is a fact that the Khufu gang name with its cartouche is to be found, painted top to bottom, on the lower end of one of the stone roof trussings in this chamber.

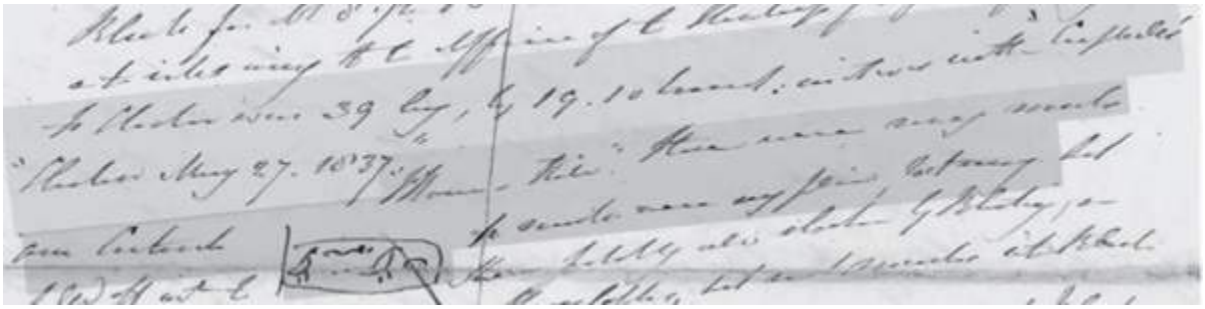

Fig. 13.14. Text from Vyse's private journal instructing Raven and Hill to inscribe the Khufu cartouche onto a roof trussing (Image: Scott Creighton)

Here, then, on this page of Vyse's private journal (from May 27, 1837) we find the colonel making a "note to self " and, in so doing, presenting compelling evidence of a conspiracy to perpetrate a hoax that was to include his assistants Raven and Hill. Note here that Vyse does not make any mention in this passage that he had "discovered a cartouche" on a specific ceiling block when he first entered and examined Campbell's Chamber—something one might reasonably have expected him to write in his private journal if he had indeed made such a historic discovery. Instead, after he signs off this passage with the phrase "as it was in Campbell's Chamber, 27th May 1837," Vyse immediately goes on to write in the very next paragraph of his private journal that he has marks from a cartouche [presumably from his secret cache] that are "For Raven and Hill" *to inscribe* upon the low end of *any* plain trussing. Note that Vyse does not write, "Here are marks from a cartouche I found on a plain, low trussing," which is what one might reasonably have expected him to have written (or something similar) had such an important discovery actually been made during his examination of the chamber.

Vyse does not say here that he found the cartouche *inscribed* (past tense) on a trussing but uses instead the revealing phrase "cartouche to inscribe" (i.e., a cartouche that has yet to be inscribed—future tense). Vyse further states in this brief passage that the cartouche is to be inscribed over the low end of *any* trussing. Vyse does not identify here a *specific* roof

block where he had found a cartouche already inscribed (which we might reasonably have expected him to identify were such a cartouche already on a specific roof block) but says, instead, that it is to be inscribed over *any* low trussing. Vyse isn't particularly fussed about which roof block the Khufu cartouche is to be inscribed over and is effectively delegating the choice of the final location, the specific roof block for this inscription, to Raven and Hill.

In short, the Khufu cartouche drawn by Vyse on this page of his private journal was not found in Campbell's Chamber when the chamber was first opened and examined but instead represents the cartouche (from Vyse's master source) that the colonel wanted Raven and Hill *to inscribe* within the chamber, and he also indicated to them where it was to be placed —on the low end of a plain trussing, which is exactly where we find this gang name and its cartouche today.

There is also a hint that when writing this passage Vyse had something of an afterthought. It seems that while Raven and Hill were painting the Khufu cartouche into the chamber Vyse would also have them paint the dedication inscription to Colonel Campbell into the chamber. This may explain why Vyse has placed quotation marks around the phrases "Campbell's Chamber May 27, 1837" (the dedication we find in the chamber today) and "For Raven & Hill." Vyse appears to be linking these two, otherwise unconnected, phrases with the use of quotation marks but only, it appears, as an afterthought, an additional "official" painting task for Raven and Hill to be undertaken while carrying out the primary task of forging the Khufu gang name onto the roof trussing. And, of course, tasked with painting an official dedication into the chamber would provide the forgers with the perfect cover for entering the pyramid laden with pots of paint and brushes to carry out their various painting tasks.

It must be stressed here, however, that Vyse's handwriting is sorely difficult to comprehend and that the above transcript from his private journal of May 27, 1837, is the result of many weeks of studying and analyzing this single passage of text by myself, my wife, and a number of family members, work colleagues, and close friends, as well as a couple of handwriting experts. While it was impossible for anyone to be absolutely certain that the transcription presented above is entirely accurate, all agreed that it is a fair and reasonable transcription of this particular passage from

Vyse's journal. In short, we are confident that our reading of this passage is accurate and that any inaccuracy in our reading would be minor and would do little to alter the general meaning and implication of this passage.

WALTER ALLEN VINDICATED

The game-changing significance of this entry in Vyse's private journal should leave no doubt: here we have Vyse, in his private thoughts, casually making a note of an instruction that is to be given by him to two of his main assistants, Raven and Hill, to inscribe the Khufu cartouche (presumably from his master source) onto a plain section of trussing in Campbell's Chamber.

This one line from Vyse's private journal should leave no doubt that the cartouche in Campbell's Chamber was forged by Raven and Hill on Vyse's instruction. But there is another significant aspect to this particular journal entry by Vyse: the inscribing of marks (legitimate and illegitimate) is clearly intended "For Raven & Hill." The reader may recall the written logbook entry of Walter Allen (see chapter 7), who claimed his great-grandfather Humphries Brewer had effectively witnessed the forgery, writing:

> *Had dispute with Raven and Hill about painted marks in pyramid. Faint marks were repainted, some were new.* [3]

We subsequently learned that author Zecharia Sitchin had identified Vyse, Hill, and (tacitly) Perring as the probable conspirators in his forgery claim, because these men, in Vyse's published book, were clearly the most closely identified with the painted quarry marks. Raven is *never* mentioned anywhere in Vyse's published work in connection with the painted quarry marks except as a witness, along with some others, to the facsimile drawings made of them by Hill, thus why Sitchin, relying only on Vyse's *published* account, failed to identify Raven as having a paintbrush in his hand.

Yet here we have Allen's handed-down account, written by him in 1954 after discussions with some family elders, contradicting Sitchin and

identifying the very same men that Vyse himself identifies in this incriminating passage of his private journal. To reiterate: Allen's account, contrary to Sitchin's, independently identified Raven and Hill as the painters of the marks within the Great Pyramid, and we have Vyse, in his very own private journal, *confirming* Allen's independent account, confirming that Raven did indeed have a paintbrush in his hand, along with Hill. Allen's account of his great-grandfather witnessing forgery occurring at the hands of Raven and Hill (on Vyse's instruction) is now surely vindicated.

Further evidence of Raven and Hill's close working relationship in the chambers of the Great Pyramid was discovered in 2014 by Jon Snape, who has analyzed high-resolution photos taken in Campbell's Chamber by French photographer Patrick Chapuis (see chapter 11). In one of Chapuis's photographs, Snape noticed that the two men had placed a little piece of graffiti of their own on one of the granite floor blocks inside Campbell's Chamber, just to the bottom right of the date "1837" in the dedication inscription (fig. 13.15).

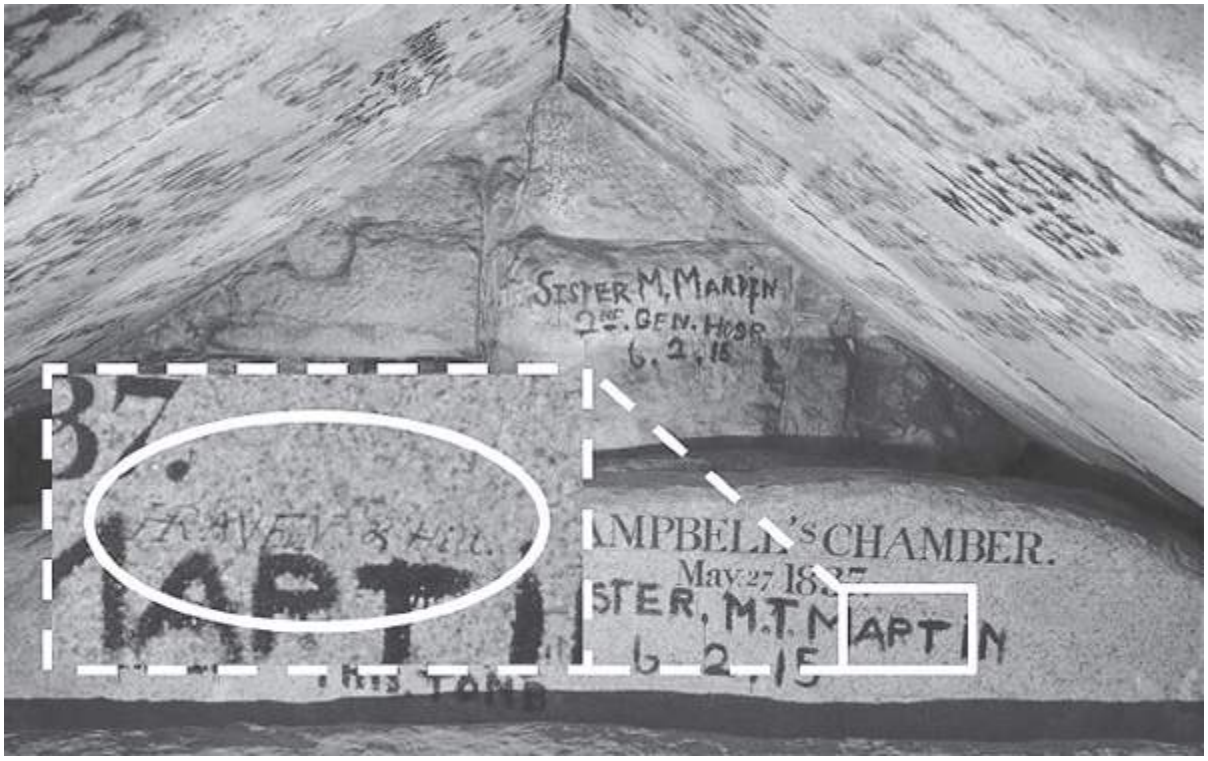

Fig. 13.15. Photo of granite floor block from Campbell's Chamber showing Raven and Hill graffiti. The graffiti reads "HRAVEN & Hill." (Image: Patrick Chapuis)

It is quite clear, then, that Raven had a close working relationship with Hill in these chambers, a relationship we see on this granite block and of which is evident in Vyse's private journal, but which is entirely absent from Vyse's published account. Could it be that Raven was the person painting the various gang names onto the actual blocks (as instructed by Vyse), with Hill tasked with making copies of Raven's work? Certainly this would ensure that two different hands were at work, two different styles of painting. If this were so, perhaps then Allen's great-grandfather Humphries Brewer had more of an issue with Raven than he did with Hill, and perhaps this was the reason why the colonel ensured that Raven was far removed from any painting of anything (noted only as a witness to Hill's facsimiles) in his published account.

CHAPTER THIRTEEN SUMMARY

- Vyse's private field notes from his time at Giza are held in the Vyse family archive at the Centre for Buckinghamshire Studies, Aylesbury, England. The Vyse manuscript consists of around six hundred foolscap pages. His handwriting, while not impossible, is extremely difficult to read.
- A number of words in Vyse's private journal may be the name Brewer. These have yet to be verified. If verified, then this will categorically prove the story that Humphries Brewer worked with Vyse at the Giza pyramids.
- Vyse writes in his private journal, "Cartouches in tomb to the W. [west] of Great Pyramid are different than Suphis." This indicates that Vyse knew how the Suphis/Khufu cartouche should be written. He could not know something was "different" from the Suphis/Khufu cartouche unless he knew (or believed he knew) how the Suphis/Khufu cartouche should be written.
- Vyse's drawing of the Khufu cartouche in his entry of May 27, 1837, presents the disc with just two parallel dots instead of three striated lines. Text around this cartouche presents an instruction from Vyse to two of his closest assistants, Raven and Hill, to inscribe cartouche

marks onto a plain, low trussing (i.e., the roof of Campbell's Chamber). This corroborates the account of Allen, whose great-grandfather Brewer had a dispute with Raven and Hill about painting and repainting marks. Vyse would have had Raven and Hill paint a cartouche (without the horizontal striations in the disc) into Campbell's Chamber around this time.

- Vyse's drawing of the gang name in his entry of June 16, 1837, presents the cartouche disc with no internal markings whatsoever—just a plain blank disc. He has written beside this cartouche the words "in Campbell's Chamber." On this date he *also* presents a Khufu cartouche in the bottom-left margin of the page, now including the three horizontal lines. A number of anomalies and contradictions on this page of his journal indicate a change to the disc in the Khufu cartouche from being a plain blank disc to one containing three horizontal lines. This change was likely precipitated by additional information Vyse received from Perring earlier that month, showing a number of Khufu cartouches from the Tomb of Iymery to the west of the Great Pyramid containing the internal disc striations.
- Vyse would not have known in 1837 that both spellings (i.e., a disc with or without striations) were perfectly valid spellings of Khufu. By feeling compelled to add lines to the blank Suphis/Khufu disc in his master source, Vyse overegged the pudding.
- Raven and Hill demonstrated their close working relationship in these chambers by placing graffiti of their own on one of the floor blocks of Campbell's Chamber, below the dedication inscription.

14

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EVIDENCE THAT DEMANDS A VERDICT

We have seen, throughout this book, many pieces of evidence from a wide range of sources that collectively present a highly compelling case of fraud having been perpetrated by Colonel Howard Vyse and his closest assistants within the Great Pyramid of Giza. We have seen that Vyse had the means, the motive, the key knowledge, and the opportunity to perpetrate such a hoax. Above all else, it has been demonstrated that Vyse possessed the ruthlessness of character to do what needed to be done to achieve his objectives, even if that meant breaking the law and being economical with the truth to cover his tracks.

Taken collectively, the information presented in this book provides a considerable body of evidence to support the view that a fraud was most likely perpetrated by Vyse and his closest assistants within the Great Pyramid in 1837—just as Zecharia Sitchin had first proposed in 1980. The following is a list, in no particular order, of the evidence suggesting the painted marks in the relief chambers of the Great Pyramid are nineteenth-century fakes.

We have Vyse, contrary to its implied discovery in his published account, making no mention in his private journal of finding the gang name and cartouche in Wellington's Chamber (later painted by his assistants J. R. Hill and John S. Perring), a find that would have been historically momentous and would have given Vyse the important discovery he was clearly desperate to make; we have Vyse finding Old Kingdom hieratic number signs that are different from the hieratic number signs found in the small shaft chamber, which is strange considering that the two chambers

would have been built around the same time; we have the odd absence of any painted hieratic signs in Davison's Chamber when, from a statistical perspective, we should surely have found some; there's the written instruction in Vyse's private journal to his assistants Henry Raven and Hill "to inscribe" (future tense) a Khufu cartouche at a specific location (a low trussing) in Campbell's Chamber; we have the Khufu cartouche with just a plain disc drawn *twice* in Vyse's private journal; we have what appears to be an "artist's scaling grid" drawn with the Khufu cartouche in Campbell's Chamber; we have Vyse bizarrely copying two dots under the snake sign in the cartouche when all the other paint spots in and around this cartouche on the roof block would surely have told him that the two paint spots he elected to copy were no more significant than any of the many other random paint spots on the roof block; we have traces of paint runnels on the roof block at the bottom right of the cartouche where the paint was thickest and appears to spread laterally along the wall joint; we have Vyse visiting the Tomb of Iymery with the specific purpose of checking the spelling of the Khufu cartouches in this tomb (made known to him by Perring) against a version he had drawn in his journal and labeled "in Campbell's Chamber," and yet Vyse apparently fails to accurately draw the cartouche on his journal page (there are no stacked lines in the disc), and we have to wonder why this would be as accuracy of this particular drawing would have been crucial to his objective of making a comparative spelling analysis at the Tomb of Iymery; we have the series of edits in Vyse's diary as he realized the disc within the Suphis/Khufu cartouche needed to be changed; we have the various sets of quarry marks in the chambers scaled perfectly to fit into the available space between floor and ceiling blocks, indicating in-situ painting; we have markings following the contours of the chambers' floor blocks, again indicating in-situ painting; we have these same marks having seemingly been written onto a stone block in such a way as to prevent the inclusion of the cartouche element of the gang name, demonstrating a total lack of understanding of ancient Egyptian writing convention; one of the gang names appears to have been painted (sideways) across two adjacent wall blocks; we have gang names painted (ostensibly at the quarry) in a horizontal fashion, when this arrangement only became the norm around the Eleventh Dynasty, long after the pyramids were built; we have the inconsistency of Hill's signature on the Khufu gang name facsimile sheets, indicating that this gang name with its associated cartouche was copied

from a *hor izontal* original; we have signs oriented against normal ancient Egyptian writing convention, having been rotated perpendicular to the known top end of a gabled roof block; we have a dubious drill sign apparently copied incorrectly *eight* times; we have signs whose best hieratic match occurs sometime between Dynasties Eight and Eleven, long after the Great Pyramid was built and these chambers sealed; we have the eyewitness account of Humphries Brewer regarding Raven and Hill repainting faint marks and painting new marks; we have Vyse confirming Raven's involvement in painting marks in his private account, an involvement that is absent from his published account; we have a painted cartouche on a block that, in reality, should have been smeared with lime slurry that "cemented" small pebbles onto the surface of the block, indicating more in-situ painting; we have chemical analysis showing marks painted *sideways* onto a surface of plaster, again suggesting in-situ painting; we have lime slurry running down the wall blocks that magically manage to avoid coating any of the painted quarry marks; we have Vyse giving the impression in his published account that he had no idea that he had discovered any cartouche among the quarry marks found, an impression that is entirely false as it is entirely contradicted by his private account.

And so, by means of deductive, inductive, and abductive reasoning, we have gathered together all of these "dots" of evidence and discovered that they can all be connected logically and seamlessly by one hypothesis—fraud. Some facts presented in this book would be enough on their own to seriously suspect Vyse of having perpetrated a hoax in the Great Pyramid, but it is the sheer weight of evidence, the convergence of facts presented in this book that must surely permit us to seriously question the authenticity of the painted marks in these chambers (*all* of them), as well as Vyse's involvement in their claimed discovery.

In the beginning of this book it was stated that Egyptologists believed (and many still do) that given the complexities of the ancient Egyptian language and the state of knowledge of the language that existed in 1837, it would have been virtually impossible for a layman to have successfully pulled off such a hoax at that time. But from Vyse's private notes we learned that the colonel had a very big advantage, an advantage that considerably shifted the odds very much in his favor, allowing him to succeed in perpetrating a convincing hoax: he knew what the Suphis/Khufu cartouche should look like as it had been published some years before his

operations in Egypt began. With that crucial piece of knowledge and a little bit of luck (i.e., finding a Khufu cartouche among a cache of other mainly unintelligible, authentic ancient graffiti), Vyse was set to go. All he needed was to place these so-called quarry marks in a part of the Great Pyramid that no one had ever accessed. And once again the colonel got lucky, discovering and opening four new chambers above Davison's Chamber. Vyse was in the right place at the right time, with just enough of the right knowledge.

In short, the evidence brought forth in this book presents us with the smoking gun that points to a quite audacious hoax having been perpetrated within the Great Pyramid, a hoax that, quite literally, altered the course of world history. With Suphis/Khufu now unequivocally connected to the Great Pyramid via the various royal names that Vyse claimed to have found, the structure was now firmly anchored in the early dynastic period of ancient Egypt, a provenance that is disputed by many independent researchers and writers. Showing that there is a high likelihood that these quarry marks, principally the various royal names, were most probably faked should now allow us to take a more critical view of these marks, of the written word of Vyse, and, of course, of the Great Pyramid's true provenance—Who really built these first giant pyramids, when, and why?

It rather seems that wherever Vyse went and whatever field of human endeavor he operated, the whiff of scandal and of his perpetrating some form of fraud was never too far behind. Indeed, even in Menkaure's pyramid at Giza the odor of a fraud having been perpetrated there by Vyse and his team is almost palpable, whereby the discovery of human remains and a coffin lid bearing the inscription of the pyramid's owner, Menkaure, was later found to be entirely bogus, the remnants of an intrusive burial from a much later period. As renowned British Egyptologist Sir I. E. S. Edwards writes, "In the original burial chamber, Col. Vyse had discovered some human bones and the lid of a wooden anthropoid coffin inscribed with the name of Mycerinus. This lid, which is now in the British Museum, cannot have been made in the time of Mycerinus, for it is of a pattern not used before the Saite Period. Radiocarbon tests have shown that the bones date from early Christian times." [1]

So what we have here are archaeological artifacts from not one but *two* quite different periods that have somehow magically found themselves

together in Menkaure's pyramid, having been "found" by Vyse's team only after some earlier explorers of this pyramid had previously managed to overlook them. Why were the bones and coffin not of the same period? Are we to believe there were *two* intrusive burials from two different periods? Why then haven't we found fragments of a coffin or bones from the *other* intrusive burial (assuming there were two such burials)?

And so we now have to ask: Was Vyse a man in whom we could truly say we can have complete confidence? Can he be considered fully trustworthy, a reliable witness? Is there anything in what we have learned in this book that might raise sufficient doubt about this man that would lead us to question what he claims to have discovered in the Great Pyramid and elsewhere? In legal parlance what we have here is akin to asking: Is there "reasonable suspicion"? Are there sufficient grounds to doubt the veracity of Vyse's published account as it relates to the alleged discovery of these painted marks in the Great Pyramid? In short, are these inscriptions Vyse's greatest gift to world history or his filthiest fraud?

If we take the view that there exists sufficient doubt on the character of Vyse and that there is now also sufficient evidence that casts doubt on his claimed discoveries, how does this impact Egyptology, and where then does Egyptology go from here?

The answer is simple: Egyptology must do what it should have done in the first place with regard to these painted inscriptions—consider them inadmissible evidence until proper scientific tests can be done that will allow us to fully verify their true provenance. Egyptology must now put aside *all* written testimonies made concerning the painted marks in these chambers, including the published work of Vyse and Perring, return to the actual, physical evidence itself—the painted marks—and apply hard science to try to determine the veracity (or otherwise) of these inscriptions, for only then might the truth of these marks finally be settled.

With the authenticity of the pyramid quarry marks in serious doubt, the Great Pyramid becomes a structure that is, once more, largely anonymous to us, and, as such, we can perhaps begin to imagine an entirely different provenance for the monument as well as all the other giant pyramids of ancient Egypt. We can now begin to raise questions that have not been seriously considered since these highly dubious marks and cartouches presented by Vyse from the Great Pyramid effectively silenced

the debate almost two hundred years ago: Who were the true builders, and what was the true function of these first pyramids? We can perhaps now begin the process of disentangling and correcting a 180-year-old mistake and take the first tentative steps to discover the true history of these monuments.

And finally, it is not for myself or anyone else to *disprove* the authenticity of the painted marks within these chambers of the Great Pyramid; rather, it is the responsibility of archaeologists and Egyptologists, the custodians of them, to take the issues raised in this book seriously and to set aside their acceptance of the veracity of these marks until better, more scientific evidence becomes available that will help to finally settle this issue one way or another. Egyptology's refusal to see any need to conduct an open and transparent scientific investigation into these markings in the face of mounting evidence that strongly suggests they were faked in 1837 is simply no longer a tenable position. As independent researcher and author the late Alan F. Alford states, "The orthodox argument for the authenticity of the inscriptions is by no means a watertight case. Considerable doubt exists and should be acknowledged."

Genuine or fake—these painted marks within the Great Pyramid have become part of our common history and heritage. The world deserves to know the truth of them.

FOOTNOTES

*1 . There are five so-called relieving chambers built above the King's Chamber in the Great Pyramid. Some Egyptologists believe they were built to relieve the tremendous weight of the pyramid structure that is pressing down on the King's Chamber. To do this, massive granite and limestone blocks were stacked to form open spaces (i.e., chambers) above the roof of the King's Chamber, thereby deflecting some of the weight off the King's Chamber. The puzzle remains, though, as to why no such measures were taken for the Queen's Chamber, which has even more weight bearing down on it.

*2 . It should be noted that we could cross-check the orientations of twenty-four of the twenty-eight facsimiles against Perring's plan drawing because Hill had drawn some signs that Perring had missed [and vice versa], and thus the orientations on those four other drawings could not be compared. Also, the orientations of some of Hill's drawings were compared against some fairly recent photos of the glyphs made by Colette Dowell and Robert Schoch, for which we were grateful.

NOTES

CHAPTER ONE. MAKING HISTORY

1 . Kenyon, *Forbidden Science,* 46.

2 . Sitchin, *Stairway to Heaven,* 275–76.

3 . Sitchin, *Journeys to the Mythical Past,* 23–26.

CHAPTER TWO. SEEKING SUPHIS

1 . Sitchin, *Stairway to Heaven,* 272–73.

2 . Vyse, *Operations Carried On at Gizeh,* vol. 1, 279.

3 . Wilkinson, *Materia Hieroglyphica,* 3.

CHAPTER THREE. MAN OF MEANS

1 . Colburn, *Court Journal,* 536.

2 . Cottrell, *Mountains of Pharaoh,* 119.

3 . Great Britain House of Commons, *Journals of the House of Commons,* vol. 62, 680.

4 . Great Britain House of Commons, *Commissioners Report: Elections Beverley* , vol. 18, 387.

5 . Ibid., 389.

6 . Ibid., 393.

7 . Markham, *Nineteenth-Century Parliamentary Elections,* 4.

8 . Vyse, *Operations Carried On at Gizeh,* vol. 1, 225.

CHAPTER FOUR. COLONEL VYSE'S CREATION

1 . Vyse, *Operations Carried On at Gizeh,* vol. 1, 107.

2 . Ibid., 142.

3 . Ibid., 153.

4 . Ibid., vol. 2, 156.

5 . Ibid., vol. 1, 208.

6 . Ibid., 235.

7 . Ibid., 61.

8 . Ibid., 70.

9 . Ibid., 83–84.

10 . Cottrell, *Mountains of Pharaoh,* 121.

11 . Vyse, *Operations Carried On at Gizeh,* vol. 1, 28.

12 . Ibid., 238.

CHAPTER FIVE.
EXHIBIT 1: OTHER CHAMBERS, OTHER TEXTS

1 . Walpole, *Memoirs,* xx–xxi.

2 . Lorenzi, “Pyramid Hieroglyphs.”

CHAPTER SIX.
EXHIBIT 2: THE SILENT JOURNAL

1 . Vyse, *Operations Carried On at Gizeh,* vol. 1, 205–7.

2 . Stower, “Re: Transcribe This Snippet.”

CHAPTER SEVEN.
EXHIBIT 3: THE EYEWITNESS

1 . Sitchin, *Journeys to the Mythical Past,* 28–29.

2 . Ibid., 30.

3 . Ibid.

4 . Chute, “Her Ancestors Come to Life.” *Pittsburgh Post-Gazette.*

5 . Lawton and Ogilvie-Herald, *Giza: The Truth,* 107.

6 . Vyse, *Operations Carried On at Gizeh,* vol. 2, 152–76.

7 . *“* The Blossburg Coal Mines,” *Watkins Express,* August 3, 1865.

8 . Sitchin, *Journeys to the Mythical Past,* 31.

9 . Sitchin, *Stairway to Heaven,* 277.

CHAPTER EIGHT.
EXHIBIT 4: MYSTERY MARKS MADE IN SITU

1 . Reisner, *Mycerinus,* Plan XI (Cheops 88).

2 . Ibid., (Cheops 89).

3 . Hancock, *Fingerprints of the Gods,* xxxiv–xxxv.

4 . Hancock, “Re: Question for Graham.”

5 . Goedicke, *Old Hieratic Paleography,* P5, Hatnub, 30b.

CHAPTER NINE.
EXHIBIT 5: A PECULIAR DISTRIBUTION

1 . Roth, *Egyptian Phyles in the Old Kingdom,* 151.

CHAPTER TEN.
EXHIBIT 6: THE LIE OF THE LANDSCAPES

1 . Vyse, *Operations Carried On at Gizeh,* vol. 1, 279, 285.

CHAPTER ELEVEN.
EXHIBIT 7: CARTOUCHE CONTRADICTIONS

1 . Hooker, *Reading the Past: Ancient Writing* , 95.

2 . Snape, “Re: About Those Two Dots . . .”

3 . Ibid.

4 . Lamar and Shrode, *Water Soluble Salts,* 100.

5 . Mulertt, “Proof of forgery? You decide.”

CHAPTER TWELVE.
EXHIBIT 8: SIGNS OUT OF TIME

1 . Goedicke, *Old Hieratic Paleography,* xiii.

2 . Ibid., U24, Heqanachte, 40b.

3 . Ibid., P5, Hatnub, 30b.

4 . Ibid., G43, Funerary, 17b.

5 . Ibid., S42, Hatnub, 36b.

CHAPTER THIRTEEN.
EXHIBIT 9: THE JOURNAL SPEAKS

1 . Vyse, Private journal, June 16, 1837.

2 . Ibid., May 27, 1837.

3 . Sitchin, *Journeys to the Mythical Past,* 30.

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1 . Edwards, *Pyramids of Egypt,* 143.

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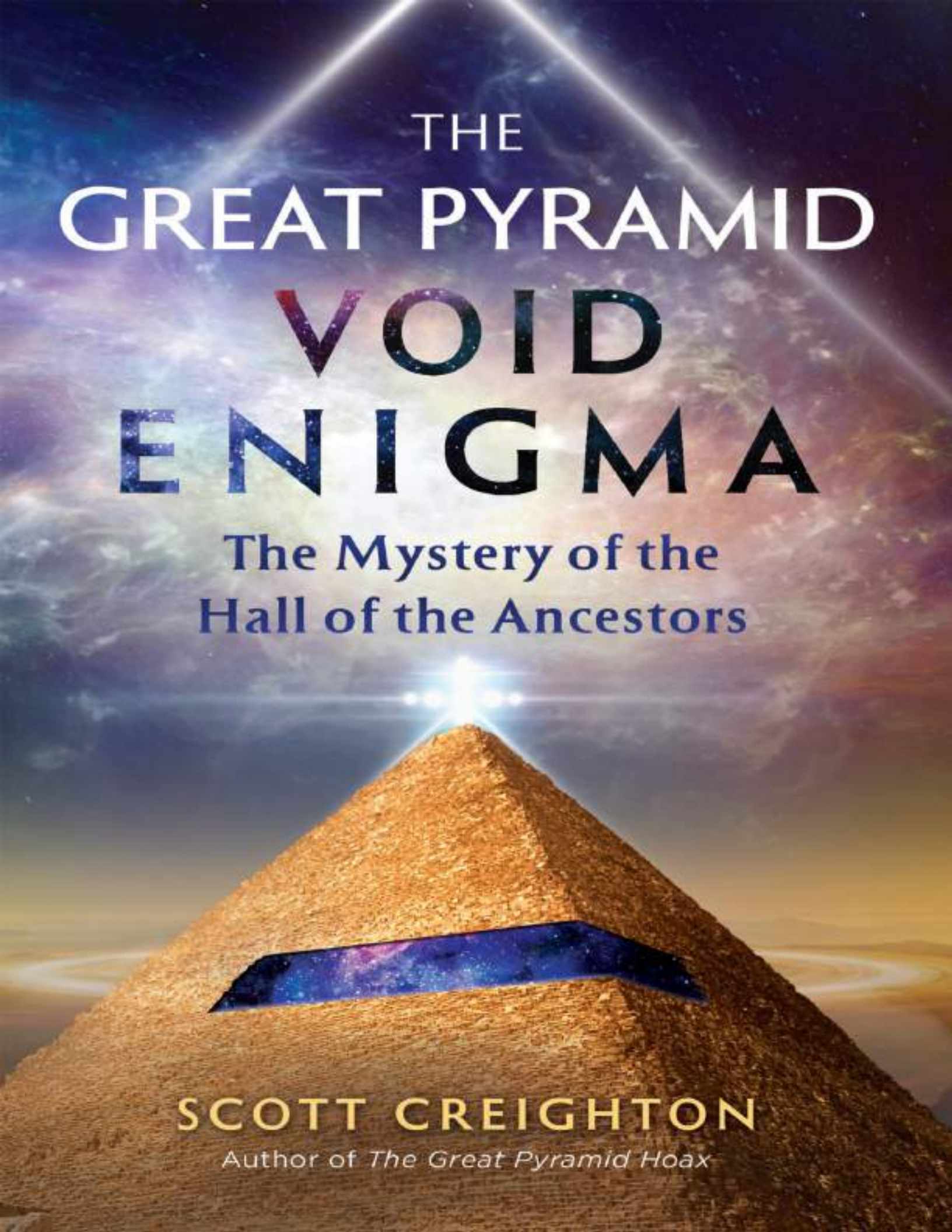
THE GREAT PYRAMID VOID ENIGMA

The Mystery of the Hall of the Ancestors



SCOTT CREIGHTON

Author of *The Great Pyramid Hoax*

THE GREAT PYRAMID VOID ENIGMA

The Mystery of the Hall of the Ancestors

SCOTT CREIGHTON

Bear & Company
Rochester, Vermont

This book is dedicated to the memory of my beautiful niece,
Stacey Diane Creighton
(1982–2020),
who was called from this earthly realm much too soon. She could sing like an angel, and the angels will surely embrace her as one of their own.

* * *

The ideas in this book would likely never have seen the light of day were it not for the many other authors, researchers, scientists, and thinkers who have gone before me and upon whose shoulders many of the ideas in this book stand. To those great and maverick thinkers and researchers who paved the way—Graham Hancock, Robert Bauval, Robert Schoch, the late, great John Anthony West, and last but by no means least, Rand and Rose Flem-Ath—I thank and salute you all.

Writing a book such as this is, for the most part, a lonesome endeavor and not without its problems and setbacks. Without the daily encouragement of my wife, Louise, this book might never have been completed. I cannot thank you enough for always being there, Sweets. We had some exhilirating and fun-filled days at the height of the research, none of which was at all easy during a global pandemic.

My children were very young when I began my writing adventure. They are young adults now, studying at university and making their own way in the world. But in both of them I see young minds that are willing to question, a characteristic that will, I'm sure, stand them in good stead in the years to come. Thank you, Jamie and Nina for all your questions.

Gary Osborn, coauthor of my first book, *The Giza Prophecy*, deserves a special mention here. He has always been willing to look over my work with a critical eye and has, in this book, added a quite brilliant insight which helped make better sense of some of my findings.

Kayla and Jeffery, my tireless and brilliant editors at Inner Traditions • Bear & Co., also deserve much credit and plaudits here. Their attention to detail is truly astonishing, and it is through their skill and dedication that this book is what it is. Thank you both.

And finally, to my critics. Without you there would be few questions for which to seek answers. Thank you all for driving me to dig ever deeper into the mysteries of our past.

THE GREAT PYRAMID VOID ENIGMA

"With some of the best forensic reporting, Scott Creighton looks again for answers to the most intriguing questions ever to emerge from the Great Pyramid. The mysterious and unexplained 'Big Void,' revealed in 2018 by subatomic-particle physicists, has baffled everyone so far, but now, with a wealth of facts and details unavailable from any other single source, Creighton makes stunning connections between cutting-edge science and esoteric tradition, and he backs it all up with some very impressive detective work. If you want to know the facts—and be thoroughly enthralled—you must not skip this terrific read."

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"Everyone loves a mystery, and the mystery of Giza's Great Pyramid is perhaps the most enigmatic mystery known. Who built it? When, and why? These three questions have tantalized researchers and historical chronologers seemingly forever. Recently, the scientists of the ScanPyramids project discovered a large void as long and wide as the Grand Gallery itself; another large chamber hidden within an enormous, incredibly ancient structure. It's a mystery, of course. In *The Great Pyramid Void Enigma*, Scott Creighton digs deep into the history and the most pertinent of legends surrounding Egypt's pyramids and the Great Pyramid in search of answers to the big questions of 'who, when, and why.' Creighton sifts through the legends and explores the landscape of one of the most tumultuous times of our past, a time of climatic chaos and mass extinction 12,000 years ago. Most of all, he spins a marvelous story around a complex topic that the best of mystery writers will surely envy, and he links a 12,000-year-old catastrophe to the beginning of our own history. A fascinating and enlightening book. I couldn't put it down."

EDWARD F. MALKOWSKI, HISTORICAL RESEARCHER, AND AUTHOR OF *ANCIENT EGYPT 39,000 BCE*

"In true whodunit style, Creighton transports the reader on a journey of exploration, skillfully weaving powerful themes with clear emotional expression, endeavoring to reveal the truth behind Egypt's fabled Hall of the Ancestors. A comprehensive blend of history, archaeology, and ancient pyramid lore, it will undoubtedly rouse your curiosity."

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"Scott Creighton casts fresh eyes on one of the world's oldest mysteries, shattering the expectations that there is nothing new to be revealed about the marvelous megaliths of Egypt's Giza Plateau. Go inside the Great Pyramid void, and you'll emerge looking back with reawakened wonder."

RAND FLEM-ATH, RESEARCHER AND COAUTHOR OF *THE ATLANTIS BLUEPRINT* AND *THE MURDER OF MOSES*

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INTRODUCTION

Piecing Together a Bigger Picture

History is like a multidimensional jigsaw puzzle: we know that an overall picture exists, but often, particularly with our most ancient prehistory, the picture is but the faintest of outlines because while some of the pieces of the puzzle have been correctly placed, many others have been set down in the wrong place; sometimes the pieces we have are mixed up with pieces from other puzzles; and worst of all, sometimes pieces are simply lost, preventing us from ever completing the picture. With no "box cover" to guide us and with only a few of the pieces of the puzzle in the correct place, we can only ever make an educated guess as to what the partially completed picture truly represents. Similarly, in archaeological research, we can perceive but a faint sketch of our remote past from the clues we piece together.

And so it is with the early, giant pyramids of the Old Kingdom of ancient Egypt. They rise out of the desert sands like some giant, geometric jigsaw puzzle, a puzzle in which we cannot even be certain that we have all of the pieces, and of those that we *do* have, we cannot be sure that we have placed them in the correct place in order to make sense of and build the true history, the correct picture, of these ancient monuments.

Of the pieces that we do possess, they were found by many different individuals, often centuries apart, making the progress toward building a true, complete picture of these monuments frustratingly slow. But gradually, enough pieces were found to allow us to come to a consensus as to what the partially completed picture is showing us. And this is essentially where we find ourselves today with mainstream Egyptology, whose consensus view of these ancient monuments is that they were built as tombs of the pharaohs, that they were "devices" constructed in monumental stone architecture that would ensure that the pharaohs could journey to the heavens and to an everlasting afterlife among the gods residing there, the stars.

How Egyptology came to this view is a story in itself, for it wasn't always the case that the prevailing tomb theory was the accepted purpose for these ancient structures. The purpose of the pyramids is but one small part of the overall picture that we are trying to piece together. Compounding this particular issue and making the puzzle almost impossible to solve is the fact that unscrupulous individuals have placed some pieces of their own making into the mix, pieces that simply do not belong to the puzzle at all but that have the effect of completely blurring and confusing the true picture, resulting in incorrect interpretations and conclusions being reached.

But the true picture of these monuments—the picture on the front of our puzzle box—has, in fact, always been available to us. And it shows us, in fairly clear terms, how the pieces of this ancient puzzle *should* be fitted together. This particular picture, however, has long since been cast aside by mainstream Egyptologists who insist that the picture of these monuments presented to them by the ancient Egyptians themselves has little or nothing to do with the puzzle they are trying to piece together today. They prefer to work without the box picture, working in the dark, believing the few pieces they have put in place are enough for them to see the picture of our past in full.

Everything seemed fairly settled until 2016 with the publication of *The Great Pyramid Hoax,* which showed that some of the pieces of the puzzle used by Egyptologists to construct their history of these monuments were, in fact, fabrications—false pieces of the puzzle that served only to distort and obscure the overall picture. Since the publication of that book, even more false pieces have been uncovered, and like the earlier false pieces, these need to be removed from the puzzle in order to clarify the picture. More recently, in November 2017, another piece of the puzzle was discovered: a potentially massive new chamber deep within the Great Pyramid that calls into question the picture the Egyptologists have so painstakingly created over the past two hundred or so years. And once again, it was a piece of the puzzle that the ancients had already told us about but that was effectively dismissed and ignored by Egyptology.

And so, with these new discoveries, we find that parts of the puzzle we had already assembled will have to be removed and discarded, making space in the picture for the placement of the newly discovered pieces, the correct pieces. With these recent finds, the picture of our ancient history is gradually beginning to change. No longer are we looking at a simple "tomb of the pharaoh" picture so beloved by the Egyptologists. There is more—much, much more—to the story, to the picture, of these ancient monuments.

The picture was always available to us—on the cover of the puzzle box—to guide us to correctly complete the puzzle. So, with this picture in hand, let us now remove the false pieces of the puzzle, insert the recently found pieces, reorganize the remaining pieces, and reveal the true picture of our past. In so doing, a picture emerges that better correlates with that on the box cover, better matches the ancient legends that tell us when these timeless monuments were built and, more importantly, better fits *why* they were built.

1

A Troublesome Discovery

It seemingly came from nowhere, the proverbial bolt from the blue: the discovery of a massive new “void” or space deep within the superstructure of the Great Pyramid of Giza—a possible new pyramid chamber that is equal in size to the pyramid’s enormous Grand Gallery (fig. 1.1). The discovery of the “Big Void,” as it was dubbed by its discoverers, was an instant media sensation and one that reverberated all around the world. Indeed, such was the magnitude of this discovery that even people with little interest in ancient Egyptian history were openly discussing it and, naturally, speculating on what, if anything, might be found within.

Figure 1.1. The Grand Gallery within the Great Pyramid. The gallery is almost 30 feet in height, 154 feet in length, and is inclined at an angle of 26.5°. (Photo: Keith Adler)

On November 2, 2017, an international team of around thirty-three scientists from the ScanPyramids project published the results of their two-year-long Great Pyramid research project in the journal *Nature.* Using a technique known as muon tomography (or simply muography), the ScanPyramids team set up their muon detectors inside and outside the Great Pyramid. Similar to X-rays, which are used to show different densities of matter within the human body, muons (which are by-products of cosmic rays) can be used to detect different densities of matter within solid rock, thus revealing areas where there are cavities or possible hidden chambers within the structure. The technology was first successfully used in the 1970s and since then has been used to probe the interiors of structures as diverse as volcanoes, glaciers, and even nuclear reactors.

The ScanPyramids project team was split into three separate groups, with each group working independently of the others using a different muography technique. All three groups reported identical findings with a confidence level of 99.9999 percent that the Big Void within the Great Pyramid truly is a real structural anomaly within the monument and not simply a statistical anomaly. In short, the scientists detected a massive space almost as large as, and a short distance above, the Grand Gallery of the Great Pyramid (fig. 1.2), a space that could turn out to be a truly massive hidden chamber.

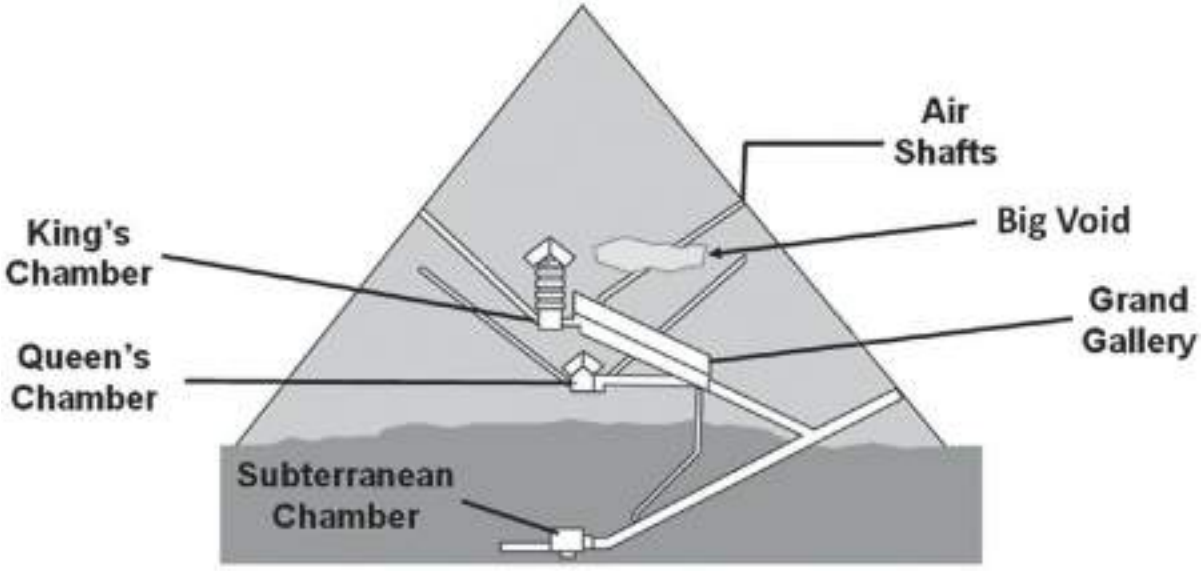

Figure 1.2. The interior chambers of the Great Pyramid, including the Big Void above the Grand Gallery. (Image: Scott Creighton)

And with this discovery, a new chapter in our understanding of this most ancient monument was about to begin.

Or was it?

WORLD REACTION

The reaction to the discovery of the Big Void from leading Egyptologists and other academics around the world was perplexing, to say the least, with some people talking about the "discovery of the century" while others suggested that the data the ScanPyramids team presented was actually in error and that no new space exists in the Great Pyramid at all.

Zahi Hawass, former head of the Supreme Council of Antiquities in Egypt (now the Ministry of Antiquities), took the academic "no mystery, nothing to see here" attitude toward the ScanPyramids project's data. Hawass led the ScanPyramids science committee overseeing the project and said:

> This is not a discovery. The pyramid is full of voids and that does not mean there is a secret chamber or a new discovery.[1]

In another article, Hawass stated:

> Now to build the Grand Gallery inside the Great Pyramid, they cannot build the Grand Gallery with a solid structure, they have to have hollows around it to build it. And therefore, the 30-meter void is already existent. It's already mentioned by Dieter Arnold 25 years ago.[2]

The Egyptologist Aidan Dodson of the University of Bristol in the UK, was equally dismissive of the find, stating:

There's zero chance of hidden burial chambers.[3]

The current head of Egypt's Ministry of Antiquities, Mustafa Waziri, was of a similarly cautious mind, and he seemed to be more critical of the preemptive manner in which the news of the Big Void discovery was released to the world's media, stating:

> The project has to proceed in a scientific way that follows the steps of scientific research and its discussion before publication.[4]

A leading American Egyptologist, Mark Lehner, who is on the ScanPyramids project's review panel, also waded into the controversy, stating about the discovery:

> Right now it's just a big difference; it's an anomaly. But we need more of a focus on it especially in a day and age when we can no longer go blasting our way through the pyramid with gunpowder as [British] Egyptologist Howard Vyse did in the early 1800s.[5]

While Hawass and other Egyptologists insist on caution in making any official pronouncement as to what the Big Void actually is (or may be), other investigators in the project have been more forthcoming with their views.

> Sébastien Procureur, from CEA-IRFU, University of Paris-Saclay, emphasized that muography only sees large features, and that the team's scans were not just picking up a general porosity inside the pyramid.
>
> "With muons you measure an integrated density," he explained. "So, if there are holes everywhere then the integrated density will be the same, more or less, in all directions, because everything will be averaged. But if you see some excess of muons, it means that you have a bigger void.
>
> "You don't get that in a Swiss cheese."[6]

Mehdi Tayoubi of the Heritage Innovation Preservation Institute in France and codirector of the ScanPyramids project believes this massive cavity within the Great Pyramid to have been a deliberate construction.

> When you know the pyramids, and the perfection of the pyramids, it's hard to imagine that it's an accident [7]

He also said:

> We don't know whether this big void is horizontal or inclined; we don't know if this void is made by one structure or several successive structures. What we are sure about is that this big void is there; that it is impressive; and that it was not expected as far as I know by any sort of theory [8]

And further:

> It's not a false start, where they tried something and abandoned it. The engineering and design of this structure was carefully planned. It's not an irregularity of construction. We leave the door open to

discuss this with Egyptologists.[9]

Tayoubi makes an important point here, and it is one that is unlikely to have been missed by the Egyptologists: the discovery of the Big Void "was not expected as far as I know by any sort of theory . . . and . . . this structure was carefully planned." In other words, this discovery is a troublesome one for Egyptology, for if this anomalous void truly *does* turn out to be another giant chamber deep within the Great Pyramid, then its presence simply does not fit with the carefully constructed "tomb of the pharaoh" narrative we have all read in our school textbooks for the better part of two hundred years.

All of which may go some way to explaining the clear reluctance of leading Egyptologists to even acknowledge that there is anything at all to the anomaly and the willingness of others to assert that the project data indicating the presence of the Big Void may actually be in error. For the Egyptologists, the scenario here is akin to having pieced together a substantial part of a large, complex jigsaw puzzle only to find much later that there's another big piece in your puzzle box you had completely overlooked, and no matter how hard you try, it is a piece that simply will not fit into the picture you have hitherto created, a picture that you were convinced was correct but that may now have to be taken apart in order to insert the new piece.

THEORIES ABOUND

Naturally, with a discovery of this magnitude (especially one with such profound implications), we find that ideas and theories as to what the ScanPyramids project data might mean and how it should be interpreted come thick and fast. Everything from a treasure chamber, the fabled Atlantean Hall of Records, the location of the Ark of the Covenant, the true burial chamber of Khufu,[*1] a natural vug, or an artifact of the pyramid's construction process have all been suggested. Here we will take some time to consider some of the more plausible ideas that have entered into the public debate as to what the ScanPyramids project's data might ultimately reveal.

Data Misinterpretation

Misinterpretation of scientific data happens—and more often than most of us realize. Could the ScanPyramids team have made a terrible mistake with their interpretation of the data? The editor of the *Journal of Ancient Egyptian Architecture* expressed such concerns, writing:

> The form of the anomalous particles forming the supposed void image seem to have the same characteristics as the Grand Gallery: long, tall and narrow. Could it be possible that the Grand Gallery is in some way influencing the measurements made because of its very particular geometry? Perhaps creating a kind of ghost image or reflection in the scans?
>
> These are questions that we raise to try to find an explanation for the singular announcement made this week that contradicts much of what we know about the funerary architecture of this period. Our concern is that the conclusions that have been drawn from the data are not supported by that data, but we remain open and attentive to the progress of the mission, and results that might justify more definitive interpretation.[10]

Following on from this, the British Egyptologist David Lightbody considers data misinterpretation to be a distinct possibility. In a working paper analyzing the ScanPyramids project's data, Lightbody presents a hypothesis that offers an alternative interpretation of the data that suggests that no Big Void actually exists at all. In his paper, Lightbody writes:

> The "big void" may in fact be the result of two zones containing many small construction voids which

> flank the Grand Gallery. Geometric calculations . . . indicate that the new features on the scans which were interpreted as produced by a single "big" void viewed from two directions, located 40m out towards the north face of the structure, could in fact have been produced by two smaller void zones closer to the center of the pyramid, one on either side of the Grand Gallery structure.
>
> Due to the offsets of the two Nagoya nuclear emulsion detection plates from the center line of the Grand Gallery, which were of a similar magnitude . . . and the inward slope of the sides of the Grand Gallery structure, only one such void zone would be clearly visible on each Nagoya scan. On one side the small voids would be aligned with the detector and would form a zone that was almost a continuous void directed at the plate. On the other hand, the opposing void zone signals would not align with the detector and so the effect of the signals would not be cumulative. In addition, most of them would be hidden behind the signal of the main gallery structure. . . .
>
> It is not intended to suggest that this second interpretation is definitive, as some of the same methodological problems raised by the previous interpretation would then be revisited, but it is proposed that it is another plausible interpretation of the data set that should be carefully evaluated. . . . The interpretation of scan results for ancient and singular structures like the Great Pyramid must take place within a context that includes historical, archaeological, and architectural knowledge, experience, and expertise, and a methodical approach.[11]

Lightbody certainly makes valid points and a compelling argument that the Big Void may be some kind of scanning artifact, a ghost image or reflection from the Grand Gallery itself. However, the muography scanning of the Great Pyramid was carried out by three independent teams working not from two but from *three* different locations (inside and outside the monument). Lightbody's theory may explain two of those convergences but not the third. The independent results from each of the three teams converged to the same location within the structure—around ten to fifteen meters *above* the Grand Gallery. It is difficult to see how measurements taken from three different locations could all project a ghost image to the same location within the monument.

However, in consideration of this possibility, in 2019 the ScanPyramids project team performed further scans from several other locations within the Great Pyramid, including the Grand Gallery, the King's Chamber, and also the small compartments[*2] high above the King's Chamber (and thus *above* the Grand Gallery) in order to eliminate the possibility of any discovery being the result of a reflection or ghost image of the Grand Gallery, as per Lightbody's theory. The new scans confirmed the 2017 results: the Big Void is a real, massive space located above the Grand Gallery (and not a reflection or ghost image), and its length, previously thought to be thirty meters, is now thought to be closer to forty meters. The team continued to scan up to the pyramid's apex but did not detect any other significant unknown voids within the monument. As a result of the new findings, Hawass and Lehner have apparently changed their view of this discovery. Larry Pahl, director of the American Institute for Pyramid Research, said:

> As I write this (December, 2019), the Egyptian government has the Scan Pyramids team back in the relieving chambers above the King's Chamber doing more scans and probing to find the best way to try and access that large void. The team has been quiet for several years after the discovery and worldwide announcement of the void. It took a while for the Supreme Council to be convinced of that void, but now Dr. Zahi Hawass and Dr. Mark Lehner are talking openly about it, as a possible store of something significant.[12]

Stress-Relieving Chamber

> Although accepting that the project team's data is sound and that it indicates a void of some kind within the pyramid, Lehner remains skeptical that the Big Void has any meaningful significance beyond perhaps being a "legacy" of the pyramid's construction process, stating: It could be a kind of space that the builders left to protect the very narrow roof of the Grand Gallery from the weight of the pyramid.[13]

This theory by Lehner is similar to that of the so-called chambers of construction (known also as the relieving chambers or Vyse chambers) that were discovered by Vyse above the King's Chamber in 1837 (see much more on Vyse in chapter 5 and the appendices). It is believed that to relieve the immense weight and stress on the flat roof of the King's Chamber, a series of five small chambers or "compartments" were constructed above the King's Chamber, with the topmost of these compartments possessing an inclined, gabled roof in order to deflect the immense downward pressure laterally into the body of the pyramid.

This idea, however, does not stand up to scrutiny since the Queen's Chamber, which is located much farther down within the body of the pyramid and, as such, has much greater weight bearing down on its roof, has none of these stress-relieving chambers. Lehner's proposal seems also to have been rejected by one of the ScanPyramids project's team leaders, Hany Helal of Cairo University, who believes that the Big Void is simply too large a space to act as a pressure-relieving device.[14] And, of course, the corbelled design of the Grand Gallery forms a great arch, which itself can be considered a stress-relieving design, which then prompts the question: Why would you require a stress-relieving chamber to relieve another stress-relieving chamber? The arched design of the Grand Gallery suggests that whatever might be found within the Big Void might be of considerable weight.

The Iron Throne of Osiris

One of the first theories to emerge as to the purpose of the Big Void, proposed by the Italian mathematician and archaeoastronomer Giulio Magli of the Politecnico di Milano, suggests that the Big Void will be found to contain a throne made from meteoric iron that would accompany Khufu on his journey through the *duat* to his everlasting afterlife among the stars.

> For the moment, the prospections are too approximate to allow us any definitive conclusion; however, the existing information—together with what we know about the funerary religion of ancient Egypt—are sufficient to attempt at an explanation of the void which has been shown to exist inside the Pyramid of Khufu. It appears indeed that this void is not a failure in the construction, neither can [it] be interpreted as a structural feature such as a relieving chamber. We proposed here that the void corresponds to a nonfunctional "copy" of the Great Gallery beginning at the egress of the northern lower shaft and built to contain a symbolic object located under the apex of the pyramid. This object might be a throne endowed with sheets of meteoritic Iron, in accordance with some "resurrection" passages of the Pyramid Texts.[15]

WHAT NEXT?

Now that the existence of the Big Void has been verified with another series of scans, science can now consider how best the space can be investigated. Some ideas on how this might be done have already been proposed. For the BBC News, Jonathan Amos wrote, "Jean-Baptiste Mouret, from the French national institute for computer science and applied mathematics (Inria), said the team had an idea how to do it, but that the Egyptian authorities would first have to approve it. 'Our concept is to drill a very small hole to potentially explore monuments like this. We aim to have a robot that could fit in a 3cm hole. Basically, we're working on flying robots,' he said."[16]

An initial investigation may be even simpler. A small hole could be drilled into the roof of the Grand Gallery deep enough to reach into the Big Void, and then an endoscopic camera pushed up through the hole to look inside the space. This idea would not be unlike the method used to explore the small cavity discovered behind Gantenbrink's Door at the top of the south shaft of the Queen's Chamber in the 1990s.

THE PICTURE ON THE BOX

While the Big Void has clearly wrong-footed Egyptology, the fact of the matter is that it really shouldn't have. This is because the Coptic-Egyptian texts that have come down to us from ancient times—texts, it has to be said, that are mostly ignored by Egyptologists as being purely myth and legend—actually tell us of this chamber or, at the very

least, strongly imply its presence within the Great Pyramid. These texts present to us the guiding picture on the front of our historical puzzle box, and are our guide to piecing together and revealing the true picture of our ancient past and, in particular, the true nature and purpose of the Big Void, including why it was absolutely vital for the ancient builders to place this inaccessible chamber high up within the Great Pyramid.

So what *are* these ancient texts, and what is it they tell us?

2

Examining the Legends

The past of humanity is quite literally littered with thousands of myths and legends, fantastic tales passed down to us in countless languages from just about every corner of the world. Most scientists today dismiss such literature as nothing more than the unscientific, wild fantasies and folklore of deeply superstitious and primitive peoples. Some scientists, however, take a different approach, viewing many of these myths and legends as accounts of actual historical events, albeit couched in a deeply symbolic and often highly embroidered language. They concede that many of these stories may, in fact, contain elements of truth, that they may actually have been attempts by ancient people to explain unusual events occurring in their natural environment using such literary devices as metaphor, allegory, and simile to create explanations that made perfect sense within their own cultural tradition's view of the world and its place in the cosmos. These fanciful stories would sometimes be written down using an assortment of media (stones, palm leaves, parchments, etc.), but more often than not—since most ancient people could not read or write—they were passed down only by oral means for hundreds and even thousands of years and were finally committed to the written form only in relatively recent times.

The oldest oral tradition we presently know of comes to us from the indigenous people of Australia.

> For Aboriginal hunter-gatherers in Australia, the imperative of passing on precise information about the nature and possibilities of the continent's harsh terrain was clear. Without such information, painstakingly accumulated by generations of ancestors, the children within a tribe might not survive. Careful story preservation seems to have been an effective strategy. . . .
>
> The island of Fitzroy, which is some 3 miles off the east coast of northern Queensland, offers an example. The Yidiɲdi Aboriginal name for the island is "gabaɽ," meaning the "lower arm" of a former mainland promontory. The term describes a situation that could have only been true when the sea level was at least 98 feet lower than it is today . . . 9,960 years ago. If the original naming of Fitzroy Island as "gabaɽ" dates from a time when it was visibly attached to the mainland—and there is no good reason to suspect otherwise— then this memory is almost 10 millennia old. That means this story has been passed on orally through some 400 generations. . . .
>
> Humanity has direct memories of events that occurred 10 millennia ago. This conclusion runs against what many anthropologists and others have inferred about both the factual basis and the longevity of such oral traditions. Science more broadly has generally been dismissive of these, largely considering them anthropological curiosities, minutiae that define particular cultures. Now many of us are forced to look at ancient stories as potentially more meaningful. The preservation of extant oral

traditions, in whatever cultures they may still be found, is imperative—they help define us all.[1]

Here we see the importance of the oral tradition. Where a stone or a piece of parchment can be lost, destroyed, or simply deteriorate over time, the human memory endures. And these "stories" were more than fables or moral tales; they often contained vital information within the narrative to ensure the tribe's survival in one of the harshest environments on the planet. These Aborigine legends were essentially "survival guides," containing much factual information, though perhaps expressed in story form for ease of teaching to children and to assist the memorizing process. What is truly extraordinary here, of course, is how intact these Aborigine stories have remained over this lengthy period of ten thousand years! But then, when your very survival is at stake, such stories will never be forgotten; they are literally a matter of life and death.

The Coptic-Egyptians had a similar imperative to adopt the oral tradition to transmit much of their own ancient history, even although their ancestors were among the first in the world to invent and use written accounts. The members of this long-persecuted group (presently about 10 percent of the Egyptian population) insist that they are the direct descendants of the ancient Egyptian civilization, the custodians of the history of the pyramid builders of the Old Kingdom. The word *Copt* is a derivative of the ancient Egyptian word *Ptah*, which simply means "Egypt." There are a number of reasons why much of the ancient history of the Coptic-Egyptians was only ever transmitted across time through the oral tradition.

In her doctoral dissertation, "The Vision of Theophilus: Resistance through Orality among the Persecuted Copts," the Egyptian professor Fatin Morris Guirguis explains why the oral tradition was so important to the Coptic-Egyptian people.

> The Copts are the direct descendants of the ancient Egyptians, one of the first civilizations to introduce writing to the world. And yet, throughout much of their history, they have reverted to preserving and transmitting their literature primarily through oral means. . . . We can identify oral transmission of narrative as a covert strategy of resistance against the erosion of religious identity and the erasure of historical practices. . . .
>
> Oral transmission of narrative not only helps preserve and define certain aspects of a culture, such as its bonds to its language, location and history, but is also a particularly resilient tool with which a culture might defend itself against extinction during conditions of persecution. Hence, we might expect to find that the oral tradition will resist change to the core message of a key narrative, but will nevertheless welcome, or at least tolerate, necessary or peripheral additions and deletions to accommodate changes over time. . . .
>
> Not only can orality preserve and save a threatened culture's history from corruption by the colonizers and those who are in power, but it can also accrue political benefits through lack of incriminating written evidence. Orality's ability to preserve secrecy, as well as collective history and identity, explains why the Copts as descendants of the ancient Egyptians, a highly literate society, and one of the earliest in human history to be credited with inventing writing, historically reverted to oral transmission to preserve their history and identity.[2]

Throughout their history, the Coptic-Egyptians were subjected to three major waves of invasion and persecution by outsiders: the Macedonians under Alexander the Great, circa 323 BCE, the Romans under Augustus Caesar, circa 31 BCE, and finally the Arab invasion, circa 639 CE. Of these conquests, Morris Guirguis further tells us:

> This brutal persecution achieved its effects; by the end of the eleventh century, the overwhelming majority of the Copts no longer used Coptic in their everyday exchanges. Manuscripts provide further evidence of this massive linguistic shift: By the twelfth century most of the Coptic manuscripts had to be translated into Arabic while the original physical Coptic manuscripts were neglected; today most of these originals have been lost or destroyed.[3]

With their culture suppressed from the time of Alexander the Great, it is little wonder that the Coptic-Egyptian people were effectively forced into memorizing their history and passing it on through the generations purely by oral means. Fragments of this oral history relating to the pyramids of Giza were eventually committed to the written form in early medieval times by a number of Arabic scholars (obviously keen to learn of the origins of these remarkable structures). The earliest Arabic translation of these Coptic-Egyptian legends seems to have been translated at some time between 840 CE and 874 CE. The most complete of these translations was included in the *Akhbār al-zamān* (The history of time) and tells us of the builder of the pyramids, King Sūrīd, and the reason for their construction. While the authorship of this early medieval tome is uncertain, some scholars believe it to have been the work of the Arabic historian al-Masudi. Later versions of the pyramid legend were also written by Murtada ibn al-Afif, Al Maqrizi, Ibn Abd al-Hakam, Abu Mashar, and Ibrahim ibn Wasif Shah, among others. The scholar Sándor Fodor tells us, "This Arabic text of the Sūrīd legend was translated from Coptic . . . the translation was made in A.H. 225, i.e., in 840/841 AD."[4]

In his published account of his pyramid explorations, Vyse (quoting the scholar Aloys Sprenger), states:

> It appears from M. Quatremere's dissertation, that the traditions of the antient Egyptians were preserved by their descendants, the Copts, who were held in great respect by the Arabs. It is also said, that, in the reign of Ahmed Ben Touloun, who conquered Egypt about 260 A.H. [874 AD], a learned man, above one hundred years old, and of either Coptic or Nabathaean extraction, lived in Upper Egypt. This person had visited many countries, and was well informed of the antient history of Egypt, and was, by order of Ahmed Ben Touloun, examined before an assembly of learned Maliometans; and Masoudi's [al-Masudi's] account of the Pyramids is said to have been given upon the authority of this learned man. . . . Masoudi affirms, in the Akbar-Ezzeman, that he wrote his account of Sūrīd from a Coptic modern history.[5]

And so, in this Arabic translation of the original Coptic-Egyptian tradition, we read of a quite different purpose for the pyramids. Vyse, continuing to quote Sprenger's comments on the Sūrīd legend given by Al-Masudi, states in the appendix of *Operations,* volume II:

> That Sūrīd, Ben Shaluk, Ben Sermuni, Ben Termidun, Ben Tedresan, Ben Sal, one of the kings of Egypt before the flood, built the two great Pyramids . . . that the reason for building the Pyramids was the following dream, which happened to Sūrīd three hundred years previous to the flood. It appeared to him, that the earth was overthrown, and that the inhabitants were laid prostrate upon it; that the stars wandered confusedly from their courses, and clashed together with a tremendous noise.
>
> The king, although greatly affected by this vision, did not disclose it to any person, but was conscious that some great event was about to take place. Soon afterwards in another vision, he saw the fixed stars descend upon the earth in the form of white birds, and seizing the people, enclose them in a cleft between two great mountains, which shut upon them. The stars were dark, and veiled with smoke. The king awoke in great consternation, and repaired to the temple of the sun, where, with great lamentations, he prostrated himself in the dust. Early in the morning he assembled the chief priests from all the nomes of Egypt, a hundred and thirty in number; no other persons were admitted to this assembly, when he related his first and second vision. The interpretation was declared to announce, "that some great event would take place."
>
> The high priest, whose name was Philimon or Iklimon, spoke as follows:—"Grand and mysterious are thy dreams: The visions of the king will not prove deceptive, for sacred is his majesty. I will now declare unto the king a dream, which I also had a year ago, but which I have not imparted to any human being." The king said, "Relate it, O Philimon." The high-priest accordingly began:—"I was sitting with the king upon the tower of Amasis. The firmament descended from above till it overshadowed us like a vault. The king raised his hands in supplication to the heavenly bodies, whose brightness was obscured in a mysterious and threatening manner. The people ran to the palace to implore the king's protection; who in great alarm again raised his hands towards the heavens, and ordered me to do the same; and behold, a bright opening appeared over the king, and the sun shone forth above; these circumstances

allayed our apprehensions, and indicated, that the sky would resume its former altitude; and fear together with the dream vanished away.

The king then directed the astrologers to ascertain by taking the altitude whether the stars foretold any great catastrophe, and the result announced an approaching deluge. The king ordered them to inquire whether or not this calamity would befall Egypt; and they answered, yes, the flood will overwhelm the land, and destroy a large portion of it for some years.

He ordered them to inquire if the earth would again become fruitful, or if it would continue to be covered with water. They answered that its former fertility would return. The king demanded what would then happen. He was informed that a stranger would invade the country, kill the inhabitants, and seize upon their property; and that afterwards a deformed people, coming from beyond the Nile, would take possession of the kingdom; upon which the king ordered the Pyramids to be built, and the predictions of the priests to be Inscribed upon columns, and upon the large stones belonging to them; and he placed within them his treasures, and all his valuable property. . . . He also ordered the priests to deposit within them, written accounts of their wisdom and acquirements in the different arts and sciences.[6]

So here we have an entirely different picture as to the original purpose of the first pyramids of ancient Egypt—that they were constructed as some kind of repository or ark to help preserve all that was essential to ensure that the ancient kingdom could "reboot" itself after an anticipated, devastating deluge. These first pyramids, according to the Arabic translations of the Coptic-Egyptian oral tradition, were not constructed as the tomb of the king[*3] but rather as the womb of the kingdom, as recovery devices or instruments of revivification that would ensure the rebirth or afterlife of a kingdom that was soon to be laid waste by some mighty natural disaster—a great deluge.

And the ancient Egyptians were not the only peoples who held such a tradition. Vyse quotes Sprenger once more as saying:

The idea of a resuscitation of the world after a certain period, appear to have been alluded to by the Hindoos in their mythology, and also by the Parsees; and Herodotus states, that this was also the belief of the antient Egyptians.[7]

Of course, with any narrative that has been orally passed down for hundreds or even thousands of years and which is then translated from one language into another and then another, the integrity of some elements of the original content will inevitably become compromised; parts become conflated and embellished while entirely new elements can sometimes be added, usually for political or religious reasons. But what we must keep in mind here is that these Coptic oral narratives were *not* mere whimsical stories but would have formed a vital part of the cultural heritage and identity of the Coptic-Egyptian people, whose written history was mostly expunged and denied them by their many oppressors. As such, it would have been vital to them—just as it was to the Australian Aborigines—to ensure the key elements of their history were kept as accurate as they possibly could be, resisting other cultural influences on its core narrative. Failing to keep the narrative alive and true could have placed their history in danger of being lost forever and put their very existence as a distinct culture in Egypt in peril.

In reading the full Arabic translation of the Coptic-Egyptian oral narrative, we find that it contains elements that are self-evidently true. There are three main pyramids at Giza, two large ones and a smaller pyramid. The largest is to the east of the plateau, while the smallest to the south of the plateau is partly colored with red granite in its lower section. The bracing together of the stones is described as accomplished with the use of chiseled notches in the blocks into which would be poured molten metal, and we find evidence of such a binding method on some of the stone blocks at Giza. The narrative further informs us that the pyramids have various chambers and passages both above and below ground: again, this is perfectly true. The narrative tells us that some of the blocks were brought from Aswan, some 540 miles from Giza: again, all true. The king who built the structure is said to have been Sūrīd, a name that is believed to be a corruption of the name Suphis, that is, the Khufu of ancient Egypt that Egyptologists believe was the builder of the Great Pyramid.[8]

Fodor writes, "Manetho names the second ruler of the IVth Dynasty Σοῦφις [Sufis], and he is in fact Kheops . .

. the name Σοῦφις could easily have been misread by the translator or copyist as Σοῦριδ, thus furnishing the base for the Arabic form Sūrīd."[9] If so, then, once again, the Coptic-Egyptian oral tradition gets it right.

There are, however, elements in the narrative that do seem quite fantastical, such as, for example, the moving of the blocks from the quarry to the pyramid with the use of paper that caused the stones to somehow rise to the pyramid like an arrow being shot through the air. While such a story may sound bizarre and barely credible to our modern thinking, there may actually be an underlying truth to such a strange statement; the problem may simply be that the manner by which the stones were raised is being described using "analogous language" without any mention of the underlying lifting mechanism, that is, the *science* that might have permitted stone blocks to move through the air in such a fashion. What this fanciful language of the narrative may, in fact, be alluding to is an ancient understanding and use of thermodynamics, the use of a tethered hot air balloon made of paper (and perhaps also linen, just like the first Montgolfier balloons) to lift the blocks from the quarry, up into the air, all the way to the pyramid.[*4]

Just like the orally transmitted Homeric epic poems, the *Iliad* and the *Odyssey*, we will likely never know for sure just how old the CopticEgyptian oral narrative truly is. It seems likely, though, that core elements of the Sūrīd legend predate the Jewish, Christian, and Muslim embellishments, having been passed down by the Coptic-Egyptian oral tradition from generation to generation for hundreds or even many thousands of years. In this regard, Fodor, having extensively studied the Sūrīd legend, informs us:

> It seems logical to look for the origin of the elements of the [Sūrīd] legend in the Egypt of the Hellenistic and the Pharonic Age. . . .
>
> The frame-story, containing the dreams, merges Egyptian elements with motifs taken from Jewish and Christian apocalyptic literature. The prophecy uses the general topoi of the Hermetic Asclepius but in the Sūrīd legend, since they are closely associated with a definite king and definite events, they gain a more concrete meaning. The Christian influence transferred the emphasis to the Biblical Flood; the Flood of the Sūrīd legend, however, takes place not in a dark, mythical age, but in a chronologically determined period of Egyptian national history. . . .
>
> The exact time of the birth of the Sūrīd legend is impossible to establish. . . .
>
> The Christian influence manifest in the story indicates that it cannot have gained its final form earlier than the second half of the 3rd century. The development of the legend must have taken a longer time, so that only its final shape can be the work of a Christian. Naturally, the story was not handed down in an unchanged form by the Copts and the Arabs, but with minor changes and additions.[10]

While it is clear from his extended paper that Fodor views this Coptic-Egyptian account of Sūrīd as being mostly legendary in nature—a fable—he does, however, concede that there are elements to it that are clearly ancient Egyptian in origin, that these particular elements could possibly stretch as far back as the "Pharonic Age," and that the story comes from "a chronologically determined period of Egyptian national history." This is to say that Fodor appears to accept that some Egyptian elements of the Sūrīd story may actually be *historical* in nature and that it is *not* entirely a fable. It seems then that—as the old saying goes—at the heart of every legend there really is a grain of truth.

Given Fodor's comments on the Sūrīd "legend," then it surely becomes entirely possible that the legend's grain of truth, the construction of the pyramids as a means for Sūrīd's kingdom to be reborn after a devastating deluge, might not be of a legendary or mythical nature at all. Rather, at its heart, there are actual facts based on a true historical account (however distorted the account is made out to be through its use of analogous language and later by other cultural additions, conflations, and embellishments).

As briefly outlined earlier in this chapter, many of the claims in this ancient Coptic-Egyptian oral tradition can be shown to be factually correct and true, including, it seems, the very name of the builder of the Great Pyramid. But what about other, more contentious and seemingly outlandish aspects of the narrative, such as the stars wandering from their normal course or, indeed, the deluge itself? What evidence, if any, is there to support these controversial aspects of the ancient Coptic-Egyptian oral tradition?

3

Wandering Stars

The Coptic-Egyptian oral tradition tells us that “the stars wandered confusedly from their courses.” The first thing to observe here, of course, is that stars wandering from their normal courses across the heavens can only occur with a disturbance of some kind to the regular geodynamics of the Earth. Such a disturbance would, to an Earth-based observer, give the *appearance* that the stars (and other celestial bodies) are moving from their normal path across the sky, when, in fact, it is the Earth that is deviating from *its* normal course via a rapid pole shift. While modern science dismisses the possibility of such a calamitous event, it is perhaps worth remembering that there are many eyewitness accounts from numerous sources all over the world that speak to us of just such a calamity having occurred in our ancient past.

> And Noah saw that the Earth had tilted and that its destruction was near.[1]

> Behold, the Lord maketh the earth empty, and maketh it waste, and turneth it upside down. . . . The earth shall reel to and fro like a drunkard . . . and it shall fall, and not rise again.[2]

> And it shall come to pass in that day, saith the Lord God, that I will cause the sun to go down at noon, and I will darken the earth in the clear day.[3]

> The pillars of heaven were broken and the corners of the earth gave way. Hereupon Nu Kua melted stones of the five colours to repair the heavens, and cut off the feet of the tortoise to set upright the four extremities of the earth. Gathering the ashes of reeds she stopped the flooding waters and thus rescued the land of Chi.[4]

> The earth shook to its foundations. The sky sank lower towards the north. The sun, moon and stars changed their motions. The earth fell to pieces and the waters in its bosom uprushed with violence and overflowed . . . the system of the universe was totally disordered.[5]

> Now this has the form of a myth, but really signifies a declination of the bodies moving in the heavens around the earth, and a great conflagration of things upon the earth, which recurs after long intervals.[6]

> This time he ordered the Twins, Poquanghoya and Palongawhoya, to leave their stations at the North and South poles and let the world be destroyed. . . . After the Twins left their stations, the world's stability was removed and so it flipped end over end and everything on it was destroyed by ice.[7]

In his controversial book *Worlds in Collision* (1950), the Russian scholar Immanuel Velikovsky proposed that in remote antiquity the Earth suffered a series of catastrophes as a result of a reorientation of its terrestrial axis and cited many additional ancient sources that testify to this cataclysmic event.

> In the second book of his history, Herodotus relates his conversations with Egyptian priests on his visit to Egypt. . . . The priests asserted that within historical ages and since Egypt became a kingdom, four times in this period (so they told me) the sun rose contrary to his wont; twice he rose where he now sets, and twice he set where he now rises.

Velikovsky goes on to present a wealth of other documentary evidence from Egypt and much farther afield, all testifying to the veracity of an ancient pole shift event:

> Pomponius Mela, a Latin author of the first century, wrote: "the course of the stars has changed direction four times, and that the sun has set twice in that part of the sky where it rises today."
>
> The Magical Papyrus Harris speaks of a cosmic upheaval of fire and water when "the south becomes north, and the Earth turns over."
>
> In the Papyrus Ipuwer it is similarly stated that "the land turns round [over] as does a potter's wheel" and the "Earth turned upside down."
>
> In the Ermitage Papyrus (Leningrad, 1116b recto) also, reference is made to a catastrophe that turned the "land upside down."
>
> Harakhte is the Egyptian name for the western sun The inscriptions do not leave any room for misunderstanding: "Harakhte, he riseth in the west."
>
> The texts found in the pyramids say that the luminary [the sun] "ceased to live in the occident [the west], and shines, a new one, in the orient [the east]."
>
> Plato wrote in his dialogue, "The Statesman" (*Politicus*) "I mean the change in the rising and setting of the sun and the other heavenly bodies, how in those times they used to set in the quarter where they now rise, and used to rise where they now set. . . . At certain periods the universe has its present circular motion, and at other periods it revolves in the reverse direction."
>
> According to a short fragment of a historical drama by Sophocles (Atreus), the sun rises in the east is only since its course was reversed. "Zeus. . . . changed the course of the sun, causing it to rise in the east and not in the west."
>
> Caius Julius Solinus, a Latin author of the third century of the present era, wrote of the people living on the southern borders of Egypt: "The inhabitants of this country say that they have it from their ancestors that the sun now sets where it formerly rose."
>
> "The Chinese say that it is only since a new order of things has come about that the stars move from east to west The signs of the Chinese zodiac have the strange peculiarity of proceeding in a retrograde direction, that is, against the course of the sun."
>
> The Eskimos of Greenland told missionaries that in an ancient time the earth turned over and the people who lived then became antipodes.

In Tractate Sanhedrin of the Talmud it is said: “Seven days before the deluge, the Holy One changed the primeval order and the sun rose in the west and set in the east.”

The Egyptian papyrus known as Papyrus Anastasi IV contains a complaint about gloom and the absence of solar light; it says also: “The winter is come as (instead of) summer, the months are reversed, and the hours disordered.”[8]

Given the prevalence of so many eyewitness accounts from antiquity testifying to the reality of such a calamitous event, can our modern scientists really be so certain that rapid geographic pole shifts/Earth inversions are as impossible as they claim? Are we to believe that all of these ancient eyewitness accounts of the sky falling, of the Earth tumbling, of the stars changing direction, of the sun rising in the west and setting in the east, of the seasons reversing are but mere legends, the vivid imaginings of primitive people? Or is there truth in what they say, and are we arrogantly dismissing their message at our peril?

Proceeding on the basis that there may well be an element of truth to these ancient accounts, if the stars in the heavens had moved from their regular course at some time in our ancient past, then what might have been interpreted as a sign from the heavens would not bode well and, naturally, would be viewed by many (even today) as an ill omen. As such, it is perfectly understandable that Sūrīd’s astronomer-priests, by observing this apparent turmoil in the heavens, would have predicted dire consequences for their kingdom, one of which was the foretelling of a great deluge some centuries in their future. And it is worth emphasizing this point: the Coptic-Egyptian legend tells us that the stars wandered from their regular path across the heavens (in other words, a pole shift event was seemingly *already in progress*) and that only after observing this ominous portent unfolding in the heavens did the king order the construction of the pyramid recovery vaults in an effort to secure the kingdom’s future after the deluge. While the ongoing pole shift event itself would almost certainly have brought with it untold disaster and misfortune to many parts of the world, the Coptic-Egyptian tradition appears to suggest that its worst effect, a great deluge that would drown the entire kingdom, was anticipated to take place a few centuries *after* the pole shift itself had begun.

In consideration of such a future calamity, the first and most natural desire would be to try to find a means to survive and recover from the disaster. The second would be to find a means of recording *what* happened and *when* it happened. Finally, were it understood by Sūrīd’s astronomer-priests that this cataclysm was of a cyclical nature, it would seem expedient to also find a means of informing their descendants of the *periodicity* of these catastrophes—the duration between these events—to allow future generations to learn when the *next* event was due to occur.

We do not have to look very far to find the record of this cataclysmic event because it appears the builders recorded it within the very architecture of their pyramid recovery vaults. Through an analysis of these architectural clues, we can begin to re-create the world the ancient builders knew, the geophysical nature of the Earth before, during, and after this calamitous pole shift event occurred. However, before we consider this record, it might help us to first understand a little of the nature of pole shift events and how they might be triggered.

TYPES OF POLE SHIFTS

There are three possible scenarios by which the Earth’s geographic pole can (theoretically) be changed:

1. Earth inversion (with axial inversion),
2. Earth inversion (without axial inversion), and
3. Axial wander (often called true polar wander or geographic pole shift/crustal displacement). Earth inversions may occur independently of axial wander, or they can occur simultaneously.

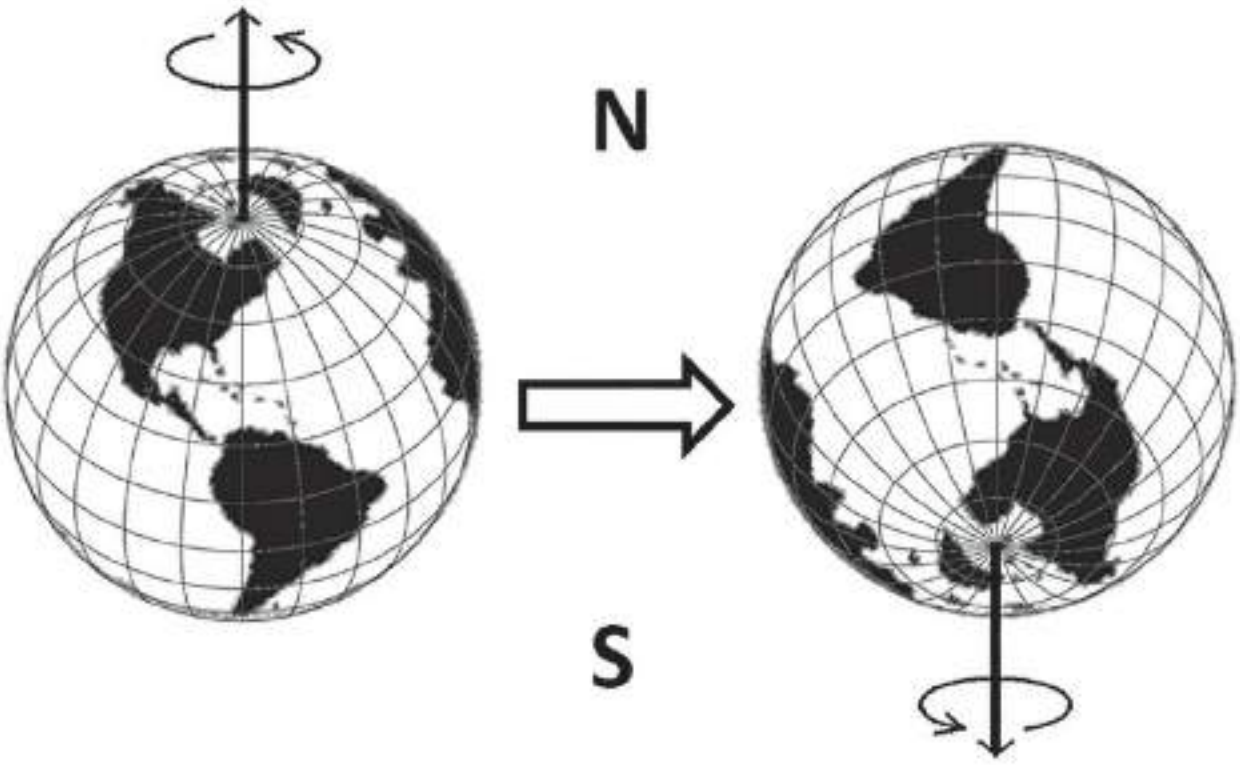

Figure 3.1. Earth before (left) *and after* (right) *an inversion (with axial inversion). The Earth's poles and equator remain in the same geographic locations, and all points on the Earth remain the same distance and orientation from the poles. The sun will continue to rise and set in the same places as before a tilt of this type.*

Earth Inversion (with Axial Inversion)

In this scenario, the Earth tumbles over in space *along with* its rotational axis, which means the sun will continue to rise in the east and set in the west. The North and South Poles (though now inverted) remain in the same geographic locations, as does the Earth's equator (fig. 3.1). With a pole shift of this nature, any monuments built anywhere on Earth, such as the Great Pyramid or the Sphinx, would keep the very same orientation toward the cardinal directions.

Earth Inversion (without Axial Inversion)

With this inversion of the Earth, its rotational axis remains in place (relative to the fixed stars) and does *not* tumble with the planet. Such a scenario may seem counterintuitive, but as shown by physicist Peter Warlow, a spinning object can, in fact, be "decoupled" from its rotational axis. Warlow demonstrated the principle of this by spinning a simple tippe-top.[*5] Shortly after the top begins its spin, it will perform a 180° inversion while its rotational axis remains *unaffected* (the axis does not tumble with the top). As a result of this, the top continues to spin in the *same direction* after its 180° flip, and in this scenario, we find that north and south exchange positions but so *also* do sunrise and sunset; the sun would now rise in the west and set in the east with such an inversion.

> The rotation and the rotational axis are left alone and basically all that happens is that the geographic poles are displaced away from the rotation poles. The displacement of the geographic poles is, of course, a well-known and much discussed phenomenon amongst catastrophists of all schools. The uniqueness of my tippe-top thesis is that it points out a fact that everyone failed to recognise, namely that, if the

> displacement of the geographic poles is taken to an extreme, the result is not only an effective north-south inversion but also an effective east-west reversal as far as the motion of the Sun and stars across the sky is concerned.[9]

Warlow also extends his theory to explain the Earth's geomagnetic flips, of which there have been many in our ancient past, the magnetic orientations of which have been recorded in rocks that were once ancient lava flows. Conventional wisdom maintains that it is the Earth's magnetic field that flips while the Earth remains stable and upright, whereas Warlow contends that it is the Earth itself that flips while the magnetic field remains in place. During his research, Warlow calculated that a complete inversion of the Earth could, in theory, occur in as little as fourteen days. While all locations across the Earth would maintain the same distance to the inverted poles and the equator, the *climate* in most locations across the planet could change dramatically, depending on how much the tilt angle of the Earth's rotational axis changed (if at all) during any inversion event.

Axial Wander (True Polar Wander or Geographic Pole Shift/Crustal Displacement)

The term "axial wander" or "polar wander" is something of a misnomer here since it is not actually the rotational axis itself that migrates but rather the Earth around it: the rotational axis remains in place (relative to the fixed stars). Because the Earth is not a rigid body but has a fluid and semifluid interior, this allows for the redistribution of mass within the planet's core to occur. Such a redistribution of mass may, on occasion, result in an imbalance that can change the planet's moment of inertia and, ultimately, may induce a reorientation of the planet itself (around its fixed axial rotation). We would then see that, while the rotational axis itself remained fixed, the Earth's surface would precess in a spiral fashion (thereby conserving angular momentum) around and through the fixed rotating axis; a spiraling "path of the pole" would bring other parts of the Earth into the polar regions (in essence, around the poles) while moving the former polar regions *away* from the poles into more temperate zones, a factor that (as previously stated) would also be influenced by any change to the obliquity (tilt angle) of the planet's axis, which may simultaneously occur as a result of the geographic shift event. In this type of pole shift event, all points across the Earth would change their relative position to the poles, the equator, and all cardinal directions, and upon a full inversion and with the rotational axis the same as before, the sun would then appear to rise in the west and set in the east (fig. 3.2).

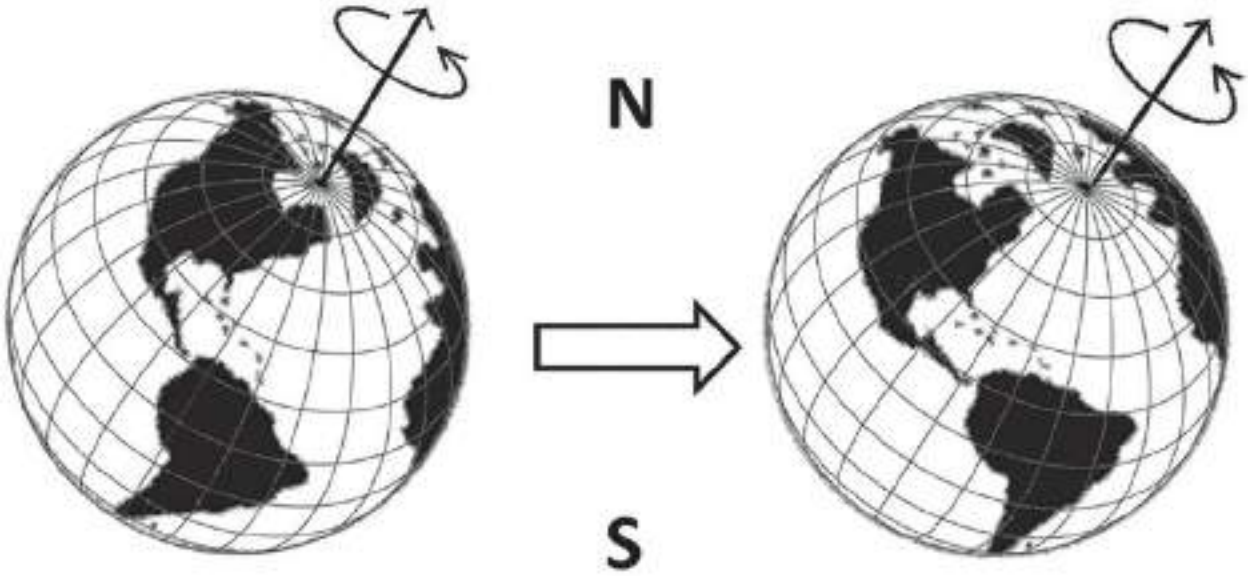

Figure 3.2. Earth before (left) *and after* (right) *an axial wander from the Arctic Sea to the southeast of Greenland. All latitudes on Earth would change as would the location of the poles, the equator, and (with a full inversion of this type) the sunrise and sunset would also swap places.*

While mainstream science mostly rejects the possibility of rapid, massive pole shift events, it does, nevertheless, accept that the Earth's surface can wander far from its rotational axis and refers to this motion as true polar wander. The view of science, however, is that this type of motion occurs very, very slowly, typically around 0.2° every million years or so. Science further insists that there is no physical evidence of any significant pole shift event having occurred in recent geological epochs. This view, however, may be a shortsighted one.

> In his dismissal of theories of ancient civilizations, Brass (2002) states that there is no paleomagnetic evidence for Earth crustal displacements having occurred. As noted earlier, Kirschvink et al. (1997) concluded from paleomagnetic data collected in Australia and North America that a massive crustal shift did occur between 534 million and 505 million years ago. Paleomagnetic dating methods are intended to measure geological processes that occur over timescales of millions of years. Although it is beyond the scope of the present article to elaborate on this point, the absence of paleomagnetic evidence of Hapgood pole shifts may not be evidence of absence but could be due to the inability of paleomagnetic dating methods to temporally resolve and thus detect climate-induced events occurring over timescales that are two or more orders of magnitude faster than tectonic processes.[10]

Slow, gradual true polar wander may well be the natural and normal state of our planet's polar wander cycle, occurring as part of the long, uniformal fluctuations in the geodynamics of the Earth. However, what our ancient texts seem to be speaking of is a catastrophic event that occurred in the prehistoric era that punctuated the otherwise gradual and regular motions of the Earth, a time when an *abnormal* polar wander event occurred suddenly and rapidly, giving birth to a new age of the sun and a very different world.

POSSIBLE MECHANISMS

Modern scientists tell us that the only means by which there could be sufficient external force to bring about a reorientation of the Earth's poles would be a direct collision of the Earth with a planet-sized object. There is simply no mechanism, they insist, that could bring about such a rapid migration of the Earth's geographic poles without, at the same time, vaporizing every living organism on the planet.

More recently, however, a number of scientists (such as the previously referenced Peter Warlow) have brought that long-held view into question and have formulated various alternative pole shift mechanisms whereby a life-extinction collision of the Earth with another planetsized object is not, in fact, required to bring about a complete inversion of the Earth.

These other proposed mechanisms generally fall under the following categories: asteroid or comet impacts (on land or sea), instability of the Earth's ice caps, grand planetary alignments, massive deluges or tsunamis, sunspots, galactic core explosions, coronal mass ejections, tidal forces from the close transit to the Earth of a planetary-sized object on a highly eccentric orbit, deep-Earth nuclear explosions, the Dzhanibekov effect, and a variety of other, more exotic, possibilities.

Some of the more credible modern theories are backed by considerable scientific research and mathematical modeling. We should keep in mind, however, that it may not have been a single mechanism that brought about the onset of a geographic pole shift event in our ancient past but rather a combination of particular conditions. For example, the close passing of a Mars-sized object may have induced colossal tidal forces on and within our planet, resulting in a sudden and rapid redistribution of mass when oceans and ice caps were "dislocated." Such massive upheaval could then have caused an imbalance on or within the Earth, which, in turn, may have triggered the tumbling motion known as the Dzhanibekov effect.

Although the mathematics describing this peculiar motion have been known since the early nineteenth century, the phenomenon itself had gone wholly unnoticed until 1985, when the cosmonaut Vladimir Dzhanibekov first observed it during a space mission to repair the Russian Salyut-7 space station. Dzhanibekov was unscrewing a wing nut, which he did with a flick of his fingers. As the wing nut spun free from its bolt, it carried on in a straight line, spinning through the station's zero gravity environment. As it spun, Dzhanibekov noticed that, at regular intervals and with no external force being applied, the wing nut flipped a full 180°, back and forth, again and again and again.

The Russian government kept Dzhanibekov's observation classified for ten years until they understood its cause, which we now know is the natural consequence of an object spinning around its least stable axis. It is also known as the tennis racket theorem or the intermediate axis theorem. Since the spherical Earth has only one axis of rotation and is gyroscopically stable (due to its equatorial bulge), scientists believe that it is impossible for the Dzhanibekov effect to flip it over. The great unknown, however, is what would happen if a second/intermediate rotational axis was introduced due to a sudden and massive redistribution of mass, either in the Earth's core or on its surface. Might then the Earth (or at least its outer shell) behave more like a tippe-top than a gyroscope?

While it is likely that there is no single mechanism that could trigger the onset of an Earth inversion event, we will now consider here three possible mechanisms that might bring about a redistribution of mass that could potentially induce a reversal of the planet's poles.

Crustal Slippage (Atomic Core Explosion)

One such mechanism that does perhaps deserve particular mention is that formulated by Chan Thomas in the early 1950s. Intrigue surrounded the publication of his theory in his 1993 book *The Adam and Eve Story*, which, for reasons unexplained, the CIA had withdrawn and censored, with only a heavily redacted version of it appearing in pdf format on the CIA website in 2013. Thomas writes:

> Once every few thousand years neutral matter escapes from the 860-mile-radius inner core into the 1300-mile thick molten outer core, and there is a literal atomic explosion inside the Earth. The explosion in the high energy layer of the outer core disrupts completely the electrical and magnetic structure in both the molten outer core and the outer 60-mile thick molten layer. Finally the ice caps are allowed to pull the shell of the earth around the interior, with the shallow molten layer lubricating the shift all the way.
>
> You can see, then, that ice ages are not a matter of advancing and retreating ice; it's simply that different areas of the Earth are in polar regions at different times, for different durations of time, with the changes between positions taking place in a fraction of a day.[11]

To this day, Thomas's work remains censored and redacted on the CIA website. For whatever reason, the CIA has deemed it necessary that the general public does not get to see the full content of this publication, and we can only speculate as to why that would be.

Asteroid Impact (Water)

In an article about the possibility of instantaneous pole shifts, Italian naval engineer Flavio Barbiero writes:

> An object as small as a half-kilometre-wide asteroid, hitting the planet in the right spot and at the right angle, is capable of developing an impulsive torque of the same magnitude of the maximum Earth's reaction torque. In this case the Earth assumes, for a very short instant, a different [second] axis of rotation.
>
> If at the moment of the impact the force of the Sun-Moon gravitational attraction on the equatorial bulge has the same direction as the force developed by the impact, a shift of the poles will inevitably follow. Immediately after the impact, in fact, the torque should go down to zero, and the Earth should recover its previous rotational axis. But if the torque exerted by the sun-moon attraction has the same direction, the torque cannot be zeroed and therefore the Earth keeps "memory" of the impact and of its direction. This "memory" consists of an extremely small rotational component, with the same direction as that of the impact, in the order of 1 millionth of the normal rotation. . . .
>
> Under the effect of this tiny rotational component, sea water begins to move towards a circle perpendicular to that rotation (the new equator). This is a very small effect, and if it was the only component, the resulting equatorial bulge would be of a few meters only. But as this happens, the value

> of the rotational component increases, at the expense of the main rotation, therefore increasing the centrifugal force which makes more water move towards the new equator, thus increasing the force and so on. This process starts very slowly, but accelerates progressively, until the centrifugal force developed by this rotational component grows strong enough to induce deformations of the Earth's mantle.
>
> From here on the equatorial bulge is quickly "re-shaped" around the new axis of rotation and Earth will soon be stable again, with a different axis of rotation and different poles.[12]

An Additional Planet (Tidal Forces)

A body in space of around the size of Mars could, during a close passage by the Earth, bring about a reorientation of the planet. This idea was put forward in the 1950s by Immanuel Velikovsky and was followed in the early 1980s by Peter Warlow. More recently, another group of scientists has analyzed this possibility, producing a mathematical model that demonstrates how such a pole shift could actually come about.

> Between 3 Myr and 11.5 kyr BP a Mars-sized object existed which moved in a highly eccentric orbit. Originating from this object, gas clouds with a complex dynamics reduced Earth's insolation and caused a drop in the global temperature. In a close encounter, 11.5 kyr ago, tidal forces deformed the Earth. While the shape of the gyroscope Earth relaxed, the North Pole moved geographically from Greenland to its present position. During this close encounter, the object was torn to pieces, each of which subsequently evaporated or plunged into the sun. These events terminated the Ice Age Epoch.[13]

It does seem, then, that some scientists, contrary to long-held scientific opinion, are now coming to the view that the reorientation of the Earth's poles can be brought about by other, less Earth-shattering mechanisms. It is one thing, however, to theorize as to how these cataclysmic events *could* come about but altogether different trying to prove that they actually did occur and were observed by our ancient ancestors. Let us now consider evidence that suggests the Earth was once oriented very differently from the present.

EARTH'S FORMER POLES

If the Coptic-Egyptian oral tradition is indeed telling us of a pole shift event that occurred in remote antiquity, a time when other texts tell us the sun rose in the west and set in the east, then where exactly were the Earth's poles formerly located? There is a considerable body of evidence from a number of sources that seems to indicate one particular location for the North Pole—southeastern Alaska. In 1958, professor Charles Hapgood proposed that the Earth's past ice ages were actually the result of different temperate zones of the Earth shifting in and out of the planet's polar regions (the great circle around the Earth's fixed axis of rotation) and that these past shift events occured several times in the past twenty thousand years or so. The evidence Hapgood presented in support of his theory was as comprehensive as it was compelling, and in his final book, *The Path of the Pole* (1970), he revised the dating of these ancient pole shift events to much more recent times, writing:

> Some of the results of the chronology of the glacial epoch worked out here are surprising. For example, I have found evidence of three different positions of the North Pole in recent time. During the last glaciation in North America the pole appears to have stood in Hudson Bay, approximately in Latitude 60° North and Longitude 83° West. It seems to have shifted to its present site in the middle of the Arctic Ocean in a gradual motion that began 18,000 or 17,000 years ago and was completed by about 12,000 years ago.[14]

In his earlier book *Earth's Shifting Crust*, Hapgood theorized that Earth's northern pole, before finally settling at its present location in the Arctic Sea, was previously located in a number of geographic locations, including

southeastern Alaska, Hudson Bay, southern Greenland, and the Norwegian Sea. More recently other researchers, such as the environmentalist and author Mark H. Gaffney,[15] have also included Baffin Island as a former geographic pole location, while the engineer and author Mark J. Carlotto proposes the Bering Sea and northwestern Greenland as additional former pole locations. Intriguingly, Carlotto identified a curious correlation relating to the former poles theorized by Hapgood. Carlotto writes:

> In a previous study of more than two hundred ancient sites, the alignments of almost half of the sites could not be explained. These sites are distributed throughout the world and include the majority of the Mesoamerican pyramids and temples that are misaligned with respect to true north, megalithic structures at several sites in Peru's Sacred Valley, some pyramids in Lower Egypt, and numerous temples in Upper Egypt. A new model is proposed to account for the alignment of certain unexplained sites based on an application of Charles Hapgood's hypothesis . . . of displacements of the Earth's crust and corresponding shifts of the geographic poles. . . . The alignment of these sites are consistent with the hypothesis that if they were built in alignment with one of these former poles they would be misaligned to north as they are now as the result of subsequent geographic pole shifts.[16]

Another piece of evidence supporting southeastern Alaska as the location of the former pole comes from independent researcher Jim Alison (inspired by the earlier work of researcher and author Jim Bowles). In 2001, Alison published an article on the Graham Hancock online forum that showed that many of the Earth's most ancient sacred sites and monuments, including Giza, could be connected together with a great circle or "horizon ring" going right around the planet. Alison writes:

> The alignment of these sites is easily observable on a globe of the Earth with a horizon ring. If you line up any two of these sites on the horizon ring, all of the sites will be right on the horizon ring. . . . Inspired by Charles Hapgood's Earth crust displacement theory, . . . Bowles observes that the Great Pyramid and the Nazca lines and figures would have been on the equator if the North Pole had been in southeastern Alaska.[17]

We can observe this grand alignment of ancient sites in figure 3.3.

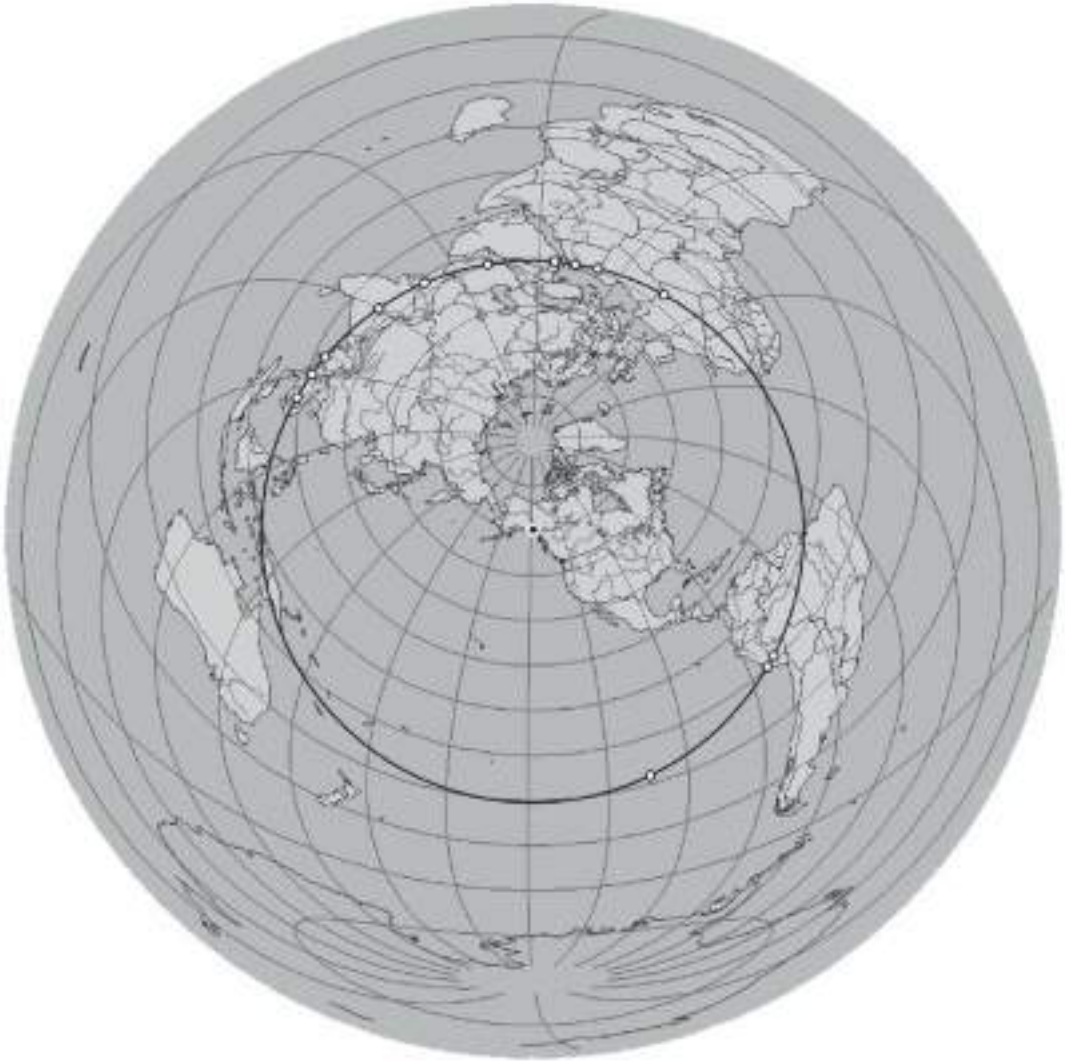

Figure 3.3. A ring of ancient sites may have been constructed along the Earth's former equator at a time when the Earth's North Pole was centered in southeastern Alaska. (Image courtesy of Jim Alison)

And so, with the Earth's North Pole centered in southeastern Alaska (as per Hapgood's original proposal) at a latitude of around 63.5° north, 146° west, this would have placed Giza within a few degrees or so from the horizon ring of this ancient equator and around 26.5° from its present latitude of just under 30° north. And so, with this data, we are perhaps seeing our first glimpse that a pole shift event may indeed have occurred in ancient times, just as many ancient traditions tell us.

But what about the Coptic-Egyptian tradition that tells us the Great Pyramid was built during this calamitous period when the stars wandered from their normal courses? What, if anything, does this monument have to say about this former Alaskan pole and how it was replaced by the Arctic Sea as the new geographic pole?

A RECORD IN STONE

Almost no one disputes that the Great Pyramid possesses a number of astronomical features built into its very architecture. We find, for example, that it is one of the most accurately aligned man-made structures in the world, with just a tiny fraction of an error in its alignment to the cardinal directions. To achieve this level of accuracy in

alignment requires the use of astronomical techniques. The pyramid's inward-sloping concavities are believed by some to be equinox markers because the shadow effect they produce is most easily observed (from ground level) during the spring and autumn equinoxes. It is also believed by many Egyptologists that the monument's slopes are symbolic of the sun's rays—another astronomical association. And then we have what Egyptologists call the pyramid's star shafts, four shafts that run through the superstructure of the pyramid from the north and south sides of the King's and Queen's Chambers. It is believed by Egyptologists that these narrow shafts served to guide the king's soul to various stars in the northern and southern skies, though why the king's soul supposedly went to four different stellar destinations is never adequately explained.

Here then we have a number of architectural aspects of the Great Pyramid that Egyptologists readily accept are of an astronomical nature. This raises the obvious question: If these aspects of the Great Pyramid are accepted as such, then is it not likely that *other* features within the structure might also be of an astronomical nature, perhaps presenting to us data about the Earth's former astronomical and geophysical status? It is entirely likely and, in fact, quite probable. Let us see.

Earth's Former Solstice and Equinox Points

A study of the Queen's Chamber and its curious niche (a narrow recess built into the chamber's east wall) may reveal additional astronomical clues of our planet's former geophysical properties (fig. 3.4). Egyptologists believe that this corbelled recess was designed to contain a statue of Khufu. However, there's another, more radical interpretation of this feature.

Since the east wall in this chamber is aligned almost perfectly due east, then a vertical line from the apex of the chamber's gabled roof to the floor, dividing the wall into two equal parts, would essentially represent the *equinoctial point,* that is, due east. The angle from the apex of the roof to the chamber's side walls (at floor level) may then also indicate the angular limits of the summer and winter solstice points at around 23° north and south of due east (fig. 3.5).

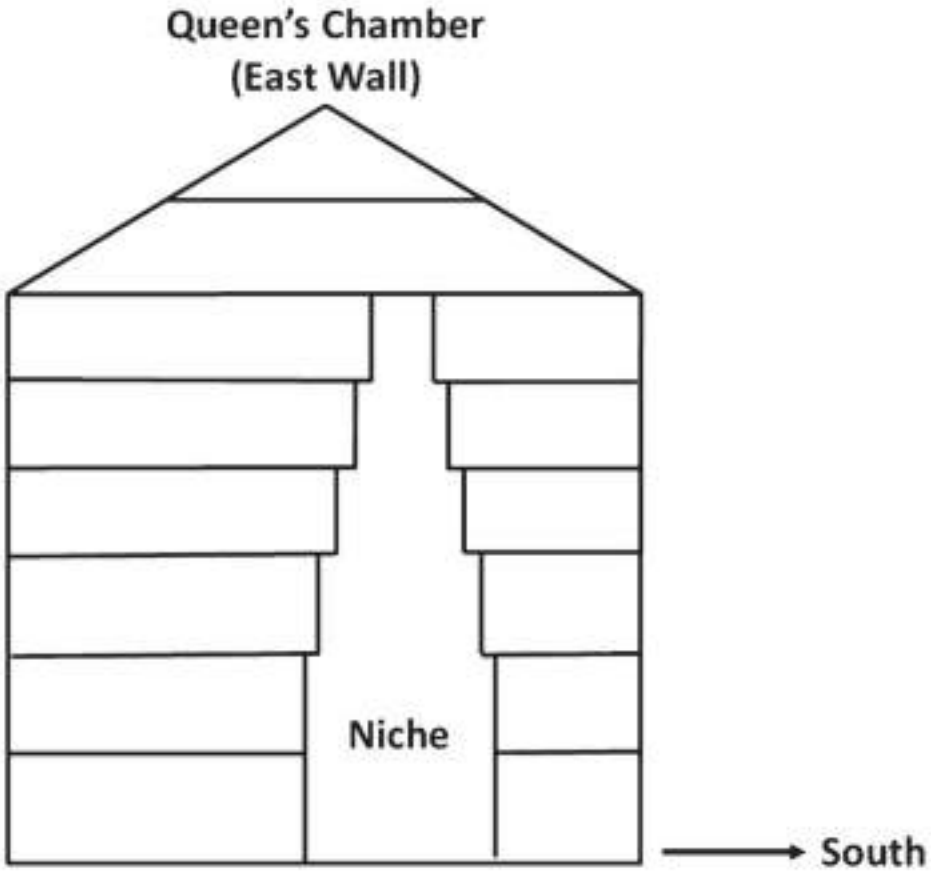

Figure 3.4. The east wall of the Queen's Chamber with the niche. Notice how the niche is offset to the right side of the wall.

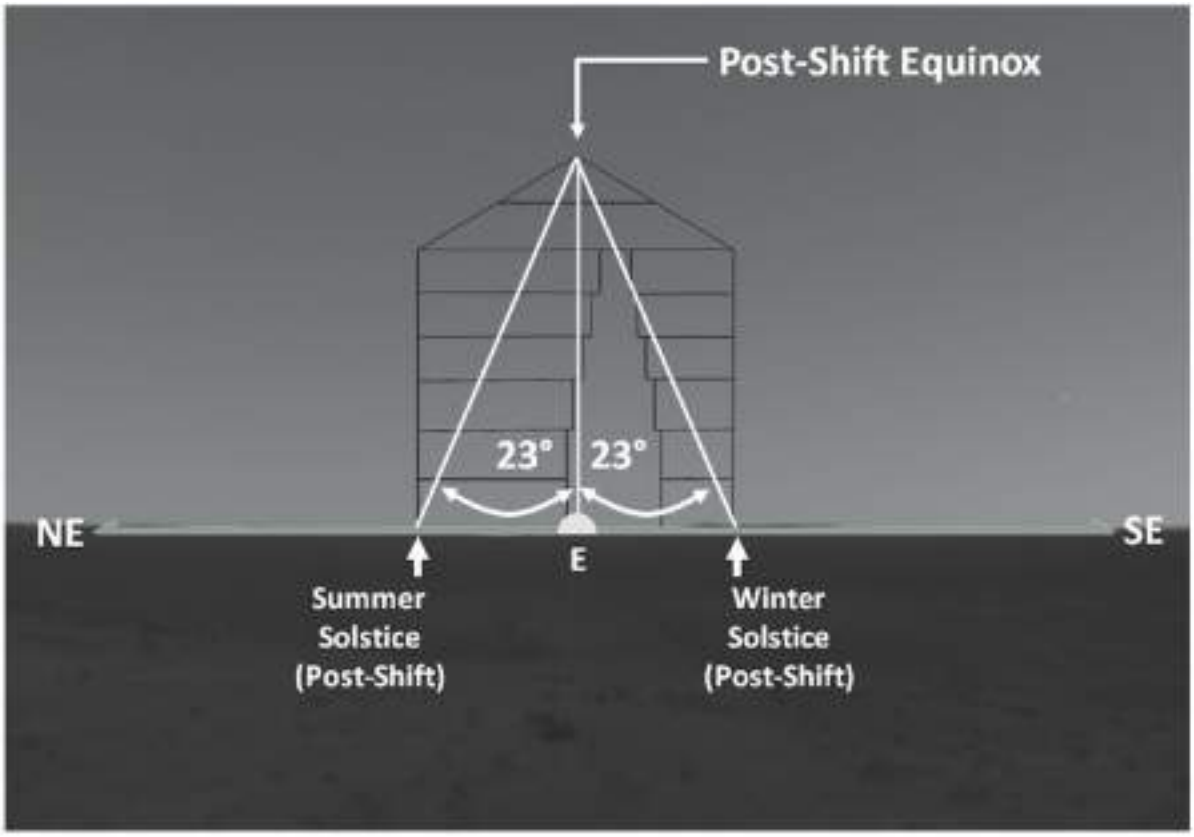

Figure 3.5. A vertical line from the apex of the roof to the floor of the east wall of the Queen's Chamber may represent the post–pole shift equinoctial position of the sun on the eastern horizon, while the angle from the apex to the side walls may represent the angular limit between the summer and winter solstice points.

But how does this help explain the purpose of the niche? There is an optical illusion known as the "moon illusion," a phenomenon that also happens with the sun. When the sun is close to the horizon (rising or setting), it can appear much larger than when it is high up in the sky. If we now consider the curious and unique feature of the niche within the east wall of the Queen's Chamber (fig. 3.4), we find that it is wider at the bottom and gradually narrows as it rises in height, just like the rising sun illusion can often appear. And so, accepting that the center of this chamber's east wall represents the post–pole shift equinoctial point (due east; fig. 3.5), then it may be that the offset position of the niche represents the pre–pole shift equinoctial position of the *rising* sun some 6° to the south of east (fig. 3.6), with its side walls perhaps also representing the angular distance between the former solstice points (fig. 3.7) in the pre–pole shift world.

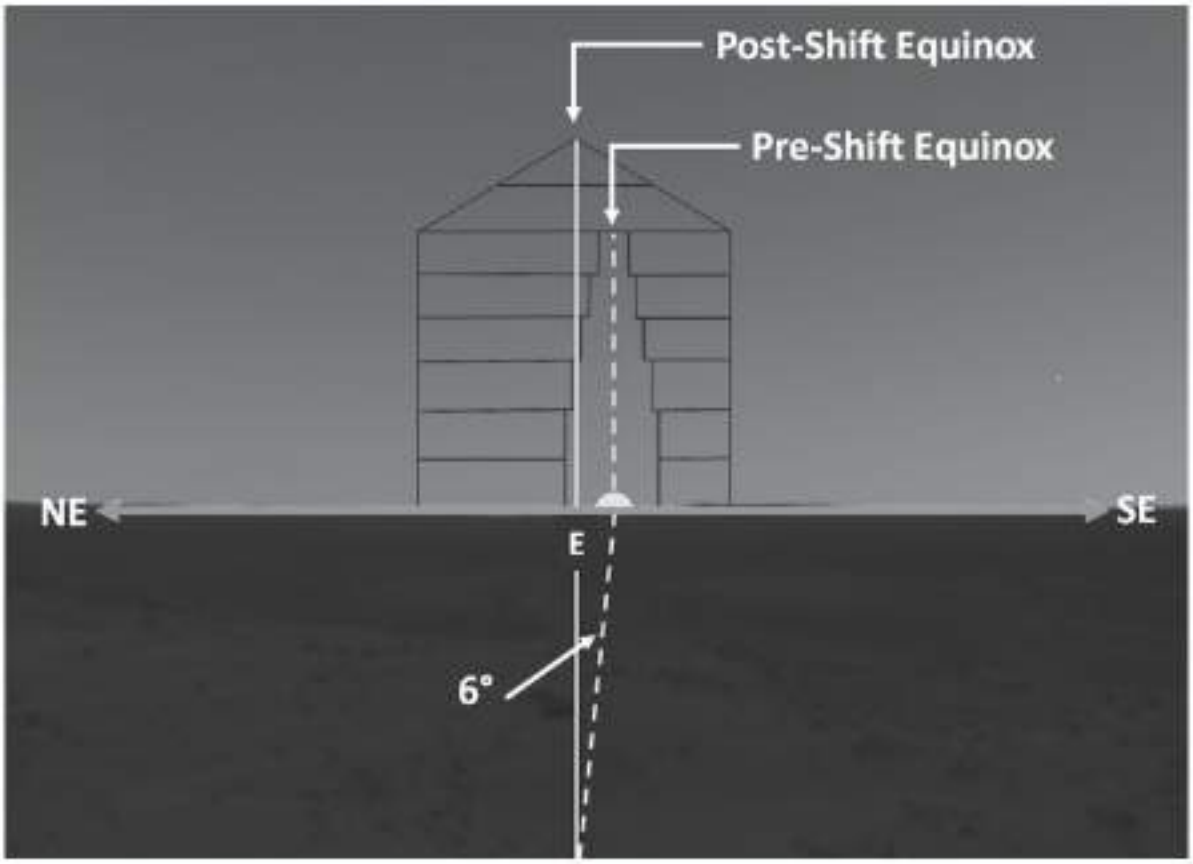

Figure 3.6. The corbelled design and offset position of the niche may have been designed to represent the pre–pole shift equinoctial point of the rising sun at 6° south of east. (Note: post-shift the sun will now set on the eastern horizon.)

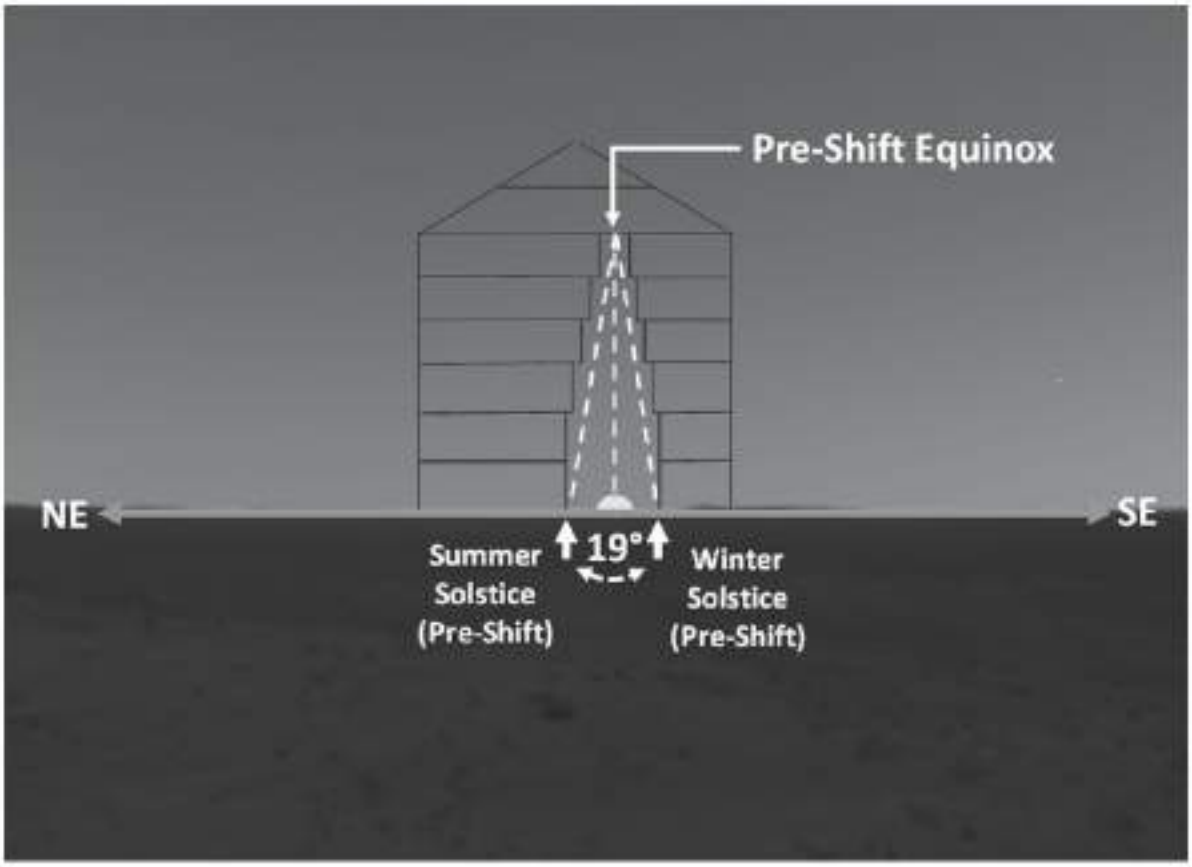

Figure 3.7. The angle from the top of the niche to the side walls may represent the pre–pole shift angular limit between the summer and winter solstice points. Such a narrow angular distance between the solstices suggests that Giza, at this time, was much closer to the equator and that the Earth's axial tilt was different.

Two Motions

One of the most curious aspects of the Great Pyramid is the prevalence in its internal design of two particular angles —6° and 26.5° (fig. 3.8). We find the 26.5° angle in the slope of the Ascending Passage, with a mirrored angle branching into the Descending Passage, as well as in the incline of the Grand Gallery. Likewise, the angle of 6°, as we have already seen with the 6° offset position of the niche, is also found in several other key features of this monument. That we find these two angles being repeatedly used in different aspects of the pyramid's architecture suggests that (*a*) they were purposely encoded into the monument, and (*b*) they must serve a particular function, most likely of an astronomical or geophysical nature.

And it's not just within the pyramid that these angles appear. In addition to his observation of the former Alaskan pole and Giza being close to the horizon ring, Bowles also observed a peculiarity in the orientation of the Sphinx at Giza. He writes, "Interestingly, this [Alaskan pole] equator passed through Giza, Egypt at 5° north of east, and the spine of the Sphinx (itself laying 5° north of east) follows this ancient equator with precise accuracy."[18]

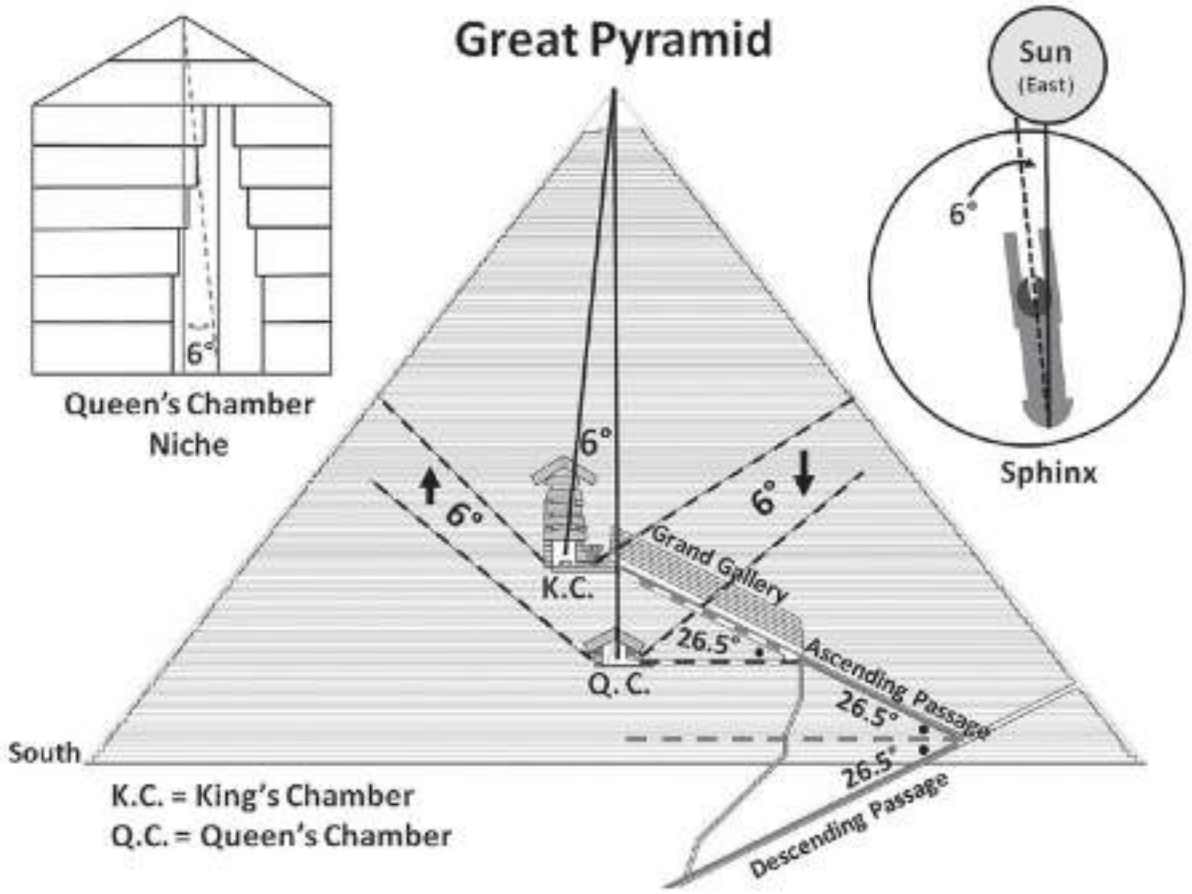

Figure 3.8. The angles of 26.5° and 6° are found repeatedly in key architectural features of the Great Pyramid and possibly also the Sphinx. Note the mirroring effect of the 26.5° angle between the Ascending and Descending Passages.

Assuming that the 5° Sphinx misalignment from due east observed by Bowles is actually nearer to 6°, then it too would fit into the pattern observed within the various features of the Great Pyramid. Assuming further that these two values, 6° and 26.5°, are indeed astronomical in nature, then what is it that they are telling us? How do they fit together into a cohesive, astronomical picture? If Hapgood, Bowles, and Alison are right that the Earth's North Pole was once located in southeastern Alaska, thereby placing Giza much closer to the equator, then we may, in fact, already have the answer to this particular question, for if we relocate the Earth's North Pole from its present location in the Arctic Sea and move it to southeastern Alaska (where it was once theoretically located), then something rather remarkable occurs (fig. 3.9).

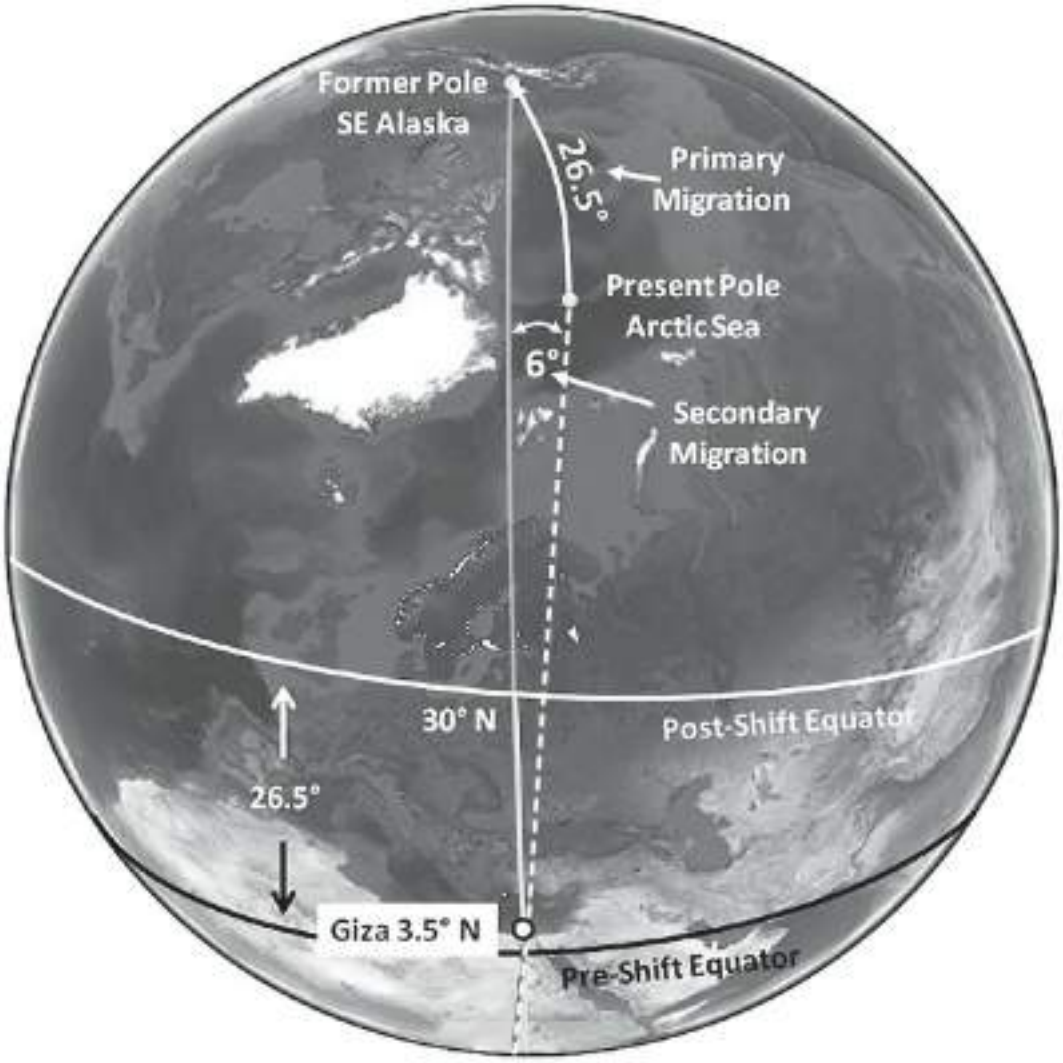

Figure 3.9. A relocation of the North Pole from the Arctic Sea to southeastern Alaska produces the two key angles of 26.5° and 6° that we observe in the Great Pyramid.

As we can see in figure 3.9, for the Arctic Sea to replace southeastern Alaska as the new geographic pole, then the planet would need to pivot, simultaneously, in two directions: a larger vertical (primary) pivot of 26.5° with a smaller horizontal (secondary) pivot of around 6°—the very same two angles we find repeated again and again within the key features of the Great Pyramid (fig. 3.8). In reality, these two motions would occur in a single, curving action on the Earth's sphere, but they would each present different observable astronomical effects that would require different architectural features within the pyramid to convey.

The Primary Motion (26.5°)

If we accept that Giza was formerly located at a latitude of around 3.5° north, then clearly to have it at its present latitude of around 30° north, Giza had to have shifted a further 26.5° from the equator. And this may be the astronomical data that the Grand Gallery within the Great Pyramid, inclined at 26.5°, is conveying to us (fig. 3.10): that Giza was shifted by 26.5° from a former latitude of 3.5° north to a new latitude of just under 30° north. Of course, if Giza was raised by 26.5°, then it would have been observed that the sun must, conversely, have fallen in the sky by the same figure (a phenomenon described by some of our ancient eyewitness accounts).

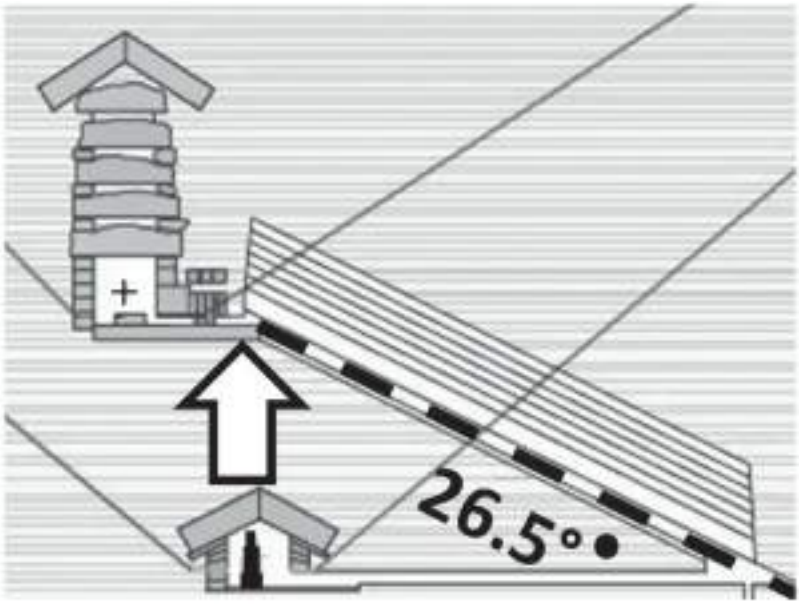

Figure 3.10. The 26.5° slope of the Grand Gallery may be conveying that Giza was raised by 26.5°, from 3.5° north to its present latitude of around 30° north.

The Secondary Motion (6°)

We saw that during the pole shift event when the Arctic Sea moved toward the Earth's northern rotational axis to become the new geographic pole (fig. 3.9), that it did so in a curved movement consisting of a primary motion of 26.5° and a smaller secondary motion of 6°, each of which would have presented different astronomical effects to a groundbased observer. While the primary motion apparently raised Giza's latitude by some 26.5° (thereby lowering the sun by 26.5°), it seems that, simultaneously, the smaller secondary motion actually raised the southern stars (including Orion's Belt) some 6° *higher* in altitude (fig. 3.11), a counterintuitive and somewhat paradoxical motion of the heavens that the builders appear to have built into the pyramid's four star shafts.

A quick analysis of these four shafts shows that the angular difference of each pair, just like the Queen's Chamber's niche and the Sphinx, is offset by around 6° and that the trajectories of the two north shafts present a crossover point while the south shafts do not.

What this configuration seems to suggest is not four static points in the sky, targeting four different fixed stellar destinations for the king's soul, as Egyptologists believe, but rather just *two* points in the sky that were in *motion;* two starting points each at an altitude of around 39° (one in the southern sky and a mirror point in the northern sky) that moved from one position in the sky to a different position. As the southern point increases in altitude by 6° from around 39° to 45°, so its mirror point in the northern sky will correspondingly *fall* by 6° from around 39° to 33°. With one set of shafts from one chamber (the Queen's) marking the start positions and the second set of shafts in the second chamber (the King's) marking the end positions of the shift, you will inevitably end up with a crossing over of one or other set of shafts, the particular crossover set dependent on the rotational direction of the shift (clockwise or counterclockwise).

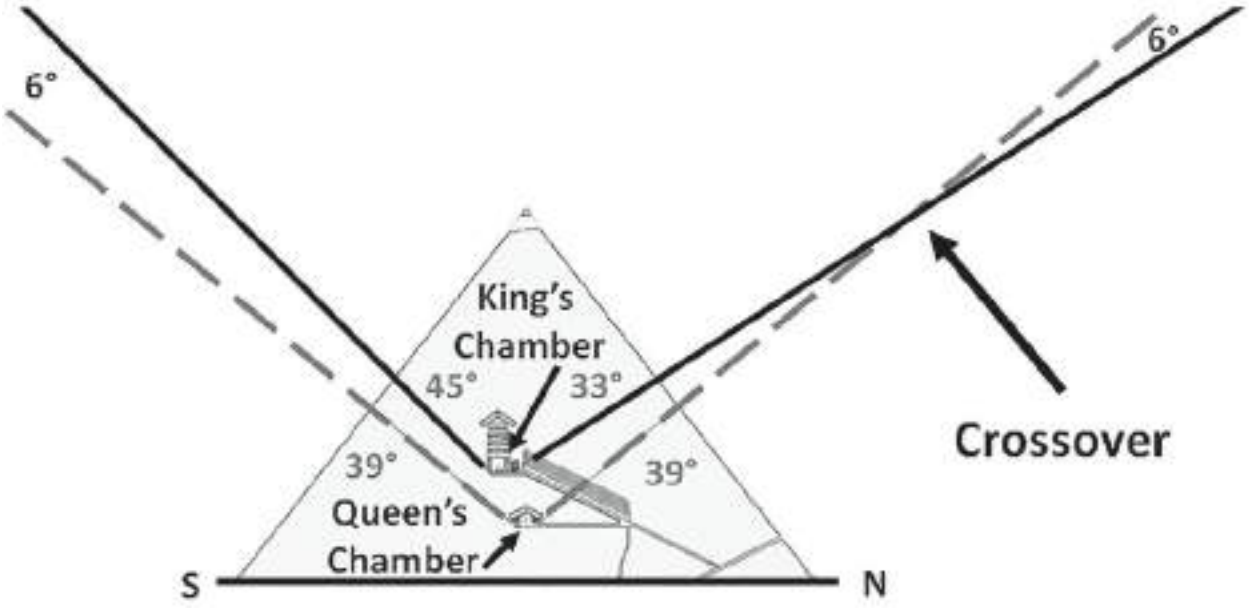

Figure 3.11. The Great Pyramid's four star shafts, showing an angular difference of around 6° between each set of shafts. Note also the crossover of the north shafts' trajectories.

Had these shafts been built as conduits to guide the pharaoh's soul to particular afterlife destinations among the stars, as Egyptologists believe, then the shafts could just as easily have targeted the same stellar destinations without any crossover of the shaft trajectories (fig. 3.12). In this sense, the crossover seems to be indicative of something much more profound; it screams at us of the heavens in motion since its presence in the north shafts is, quite simply, the natural outcome of observing two points (stars) at opposing locations in the heavens, rotating rapidly and equidistantly around the sky from one position to another, stars wandering from their normal courses just as the ancient Coptic-Egyptian tradition tells us.

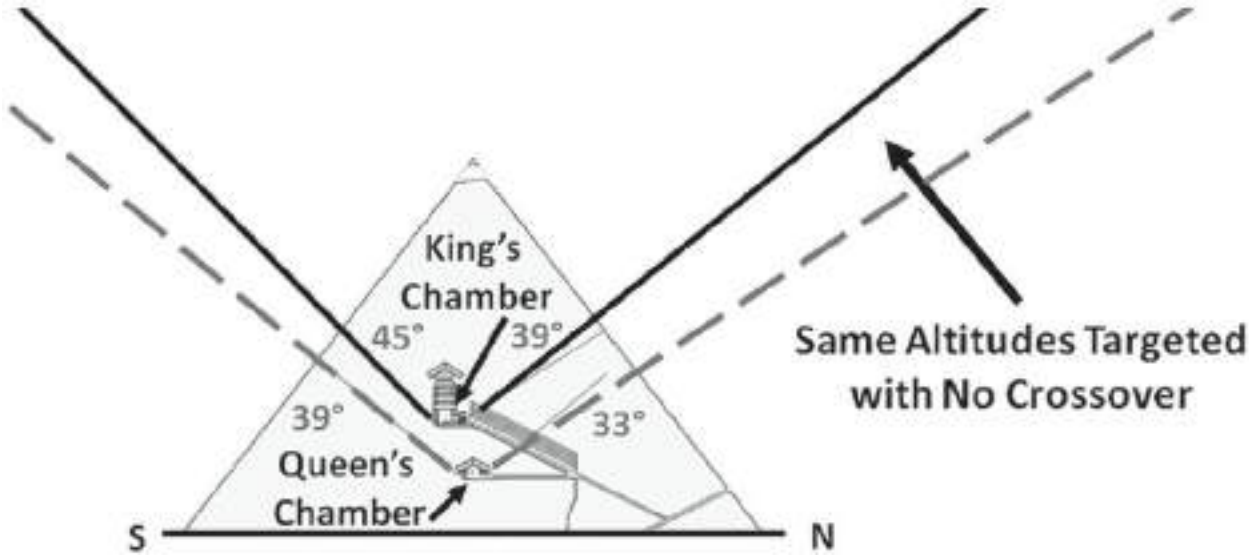

Figure 3.12. Had the pyramid's north shafts targeted destinations for the pharaoh's soul, they could have targeted these stellar destinations without any need for the crossover.

The opposing effect of the smaller secondary motion would be to lower Giza in latitude by 6° (while it was, simultaneously, rising in latitude via the larger primary motion). However, if the net outcome saw Giza raised from 3.5° north to 30° north (a net latitudinal gain of 26.5°), then the overall latitudinal shift must actually have been around 33.5°, whereby the opposing smaller secondary motion of 6° effectively cancelled out 6° of the larger primary motion, ostensibly reducing the primary motion from 33.5° to just 26.5°. Another observable astronomical effect of the smaller secondary motion would be that the cardinal directions would have shifted around the horizon also by 6°, a fact that, as noted above, may have been recorded in the positioning of the niche within the Queen's Chamber (fig. 3.6) and also in the misalignment of the Sphinx.

THE INVERSION AND THE MISALIGNED MONUMENTS

While all of the foregoing may be suggestive of a pole shift event of around 26.5°, such a shift would not have seen the world turned upside down or the sun rising and setting on the opposite horizons, as some of our ancient traditions tell us. What evidence is there, then, to tell us that in addition to Giza migrating 26.5° from the equator, the Earth also fully inverted 180° at the same time? In order to help us answer such a question, we would need to find and compare two cardinally aligned monuments, one that was built pre–pole shift and one that was built post–pole shift. Since the cardinal directions at Giza appear to have been shifted by around 6°, then we should see this disparity when comparing the alignment of the pre–pole shift monument with the post–pole shift monument. So do we have any such misaligned monuments?

The Sphinx and the Niche

We have already seen how Bowles observed that the body of the Sphinx at Giza is now aligned some 5° (possibly 6°) north of the sun's present equinoctial point while the head of the monument gazes directly due east (having possibly been recarved from the head of a lion to the head of a pharaoh much later in dynastic Egypt). Likewise, we observed earlier that the niche in the Queen's Chamber has been aligned 6° south of our present due east. This, of course, raises the obvious question: Why is the Sphinx's body (not its head) aligned 5° (or thereabouts) north of east while the niche is aligned 6° south of east? If a pole shift event had occurred, then surely we should find that either both features are misaligned in the same direction or that one of them is misaligned from due east and the other is perfectly aligned to due east. However, with the Sphinx and the niche, we find that they are both misaligned from due east by almost the same amounts but in entirely *opposite* directions. How can this mismatch in these two features be explained?

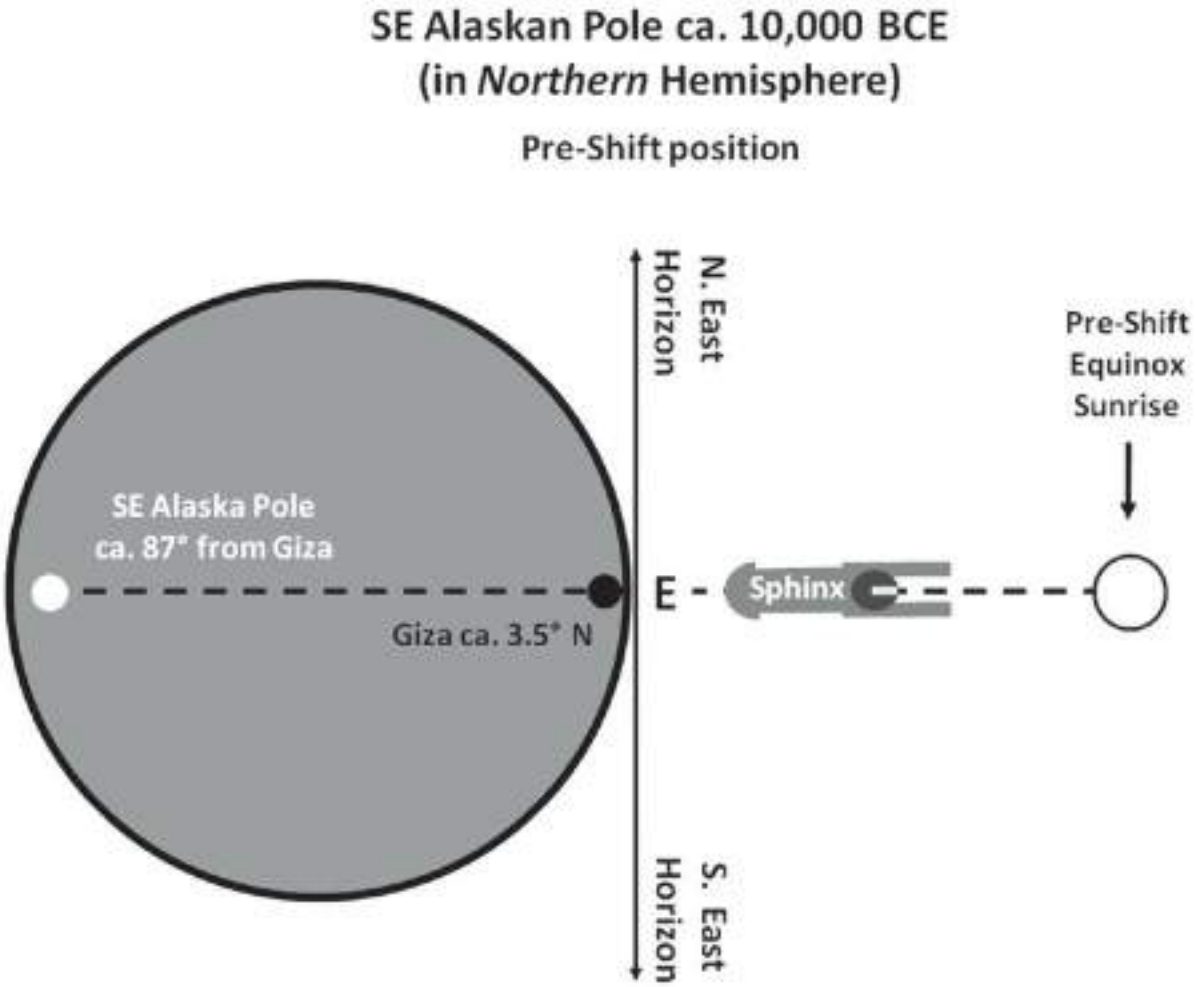

Figure 3.13. With the North Pole located in southeastern Alaska, the Sphinx (head and body) would have fully gazed due east at the equinoctial rising sun.

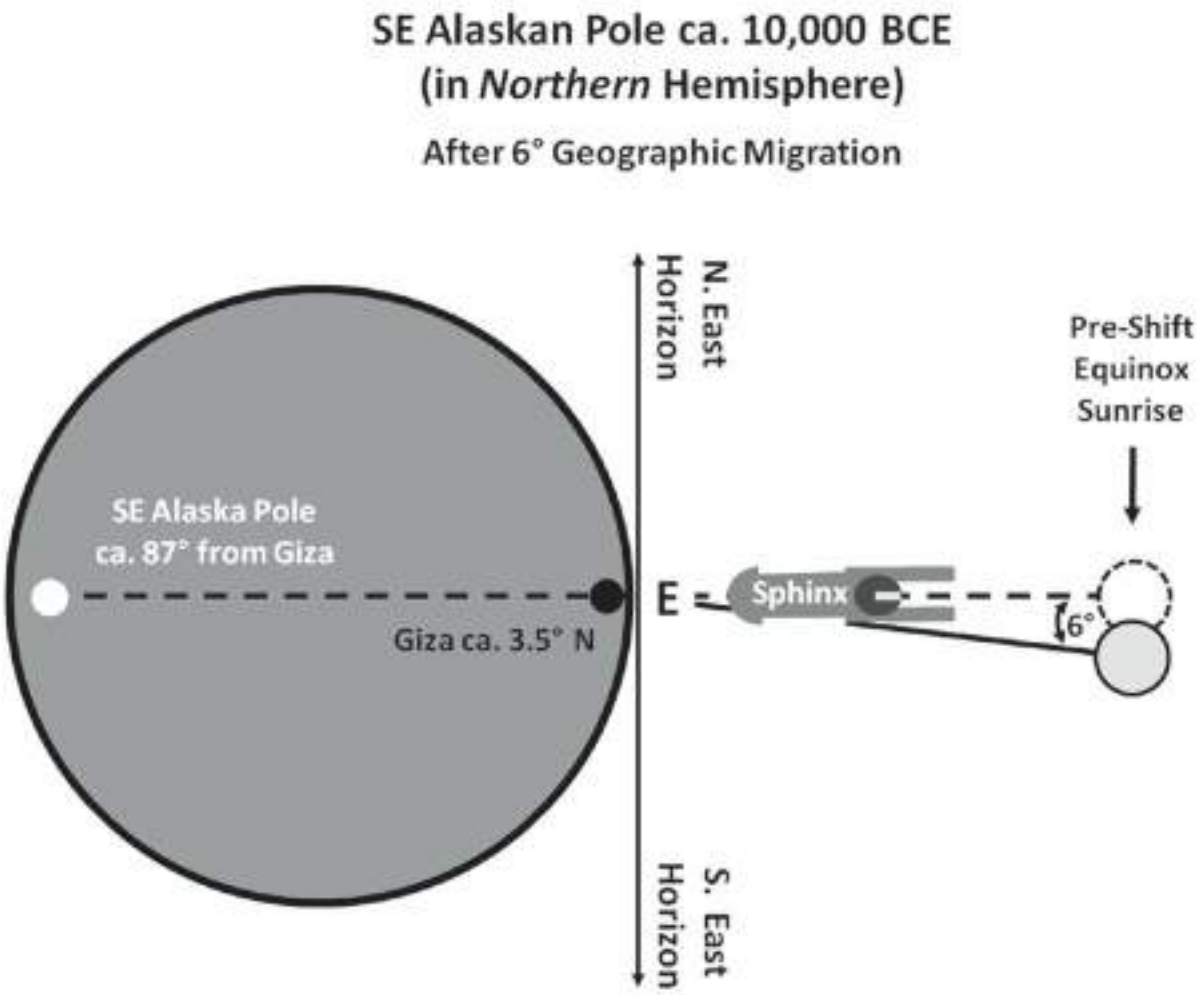

Figure 3.14. As the geographic pole shift commences, the effect of the secondary motion would have been to shift the equinoctial point 6° to the south of east, resulting in the Sphinx becoming misaligned and now gazing around 6° north of east.

There is but one explanation, and it is one that entirely accords with what our ancient traditions tell us occurred in our ancient past: a complete inversion of the Earth whereby the sun rose in the west and set in the east (figs. 3.13–3.15). It is worth noting here that the smaller shifts of 6° and 26.5° would occur together with, and as a consequence of, the much greater 180° inversion event. In effect, the total latitudinal change amounts to 206.5° (26.5° migration + 180° inversion). Keep in mind also that the inversion event is not a simple flipping or tumbling of the planet. The Earth's rotational axis (its poles) remain in place (relative to the fixed stars) while the planet itself passes through it in a great spiraling motion (thereby conserving angular momentum).

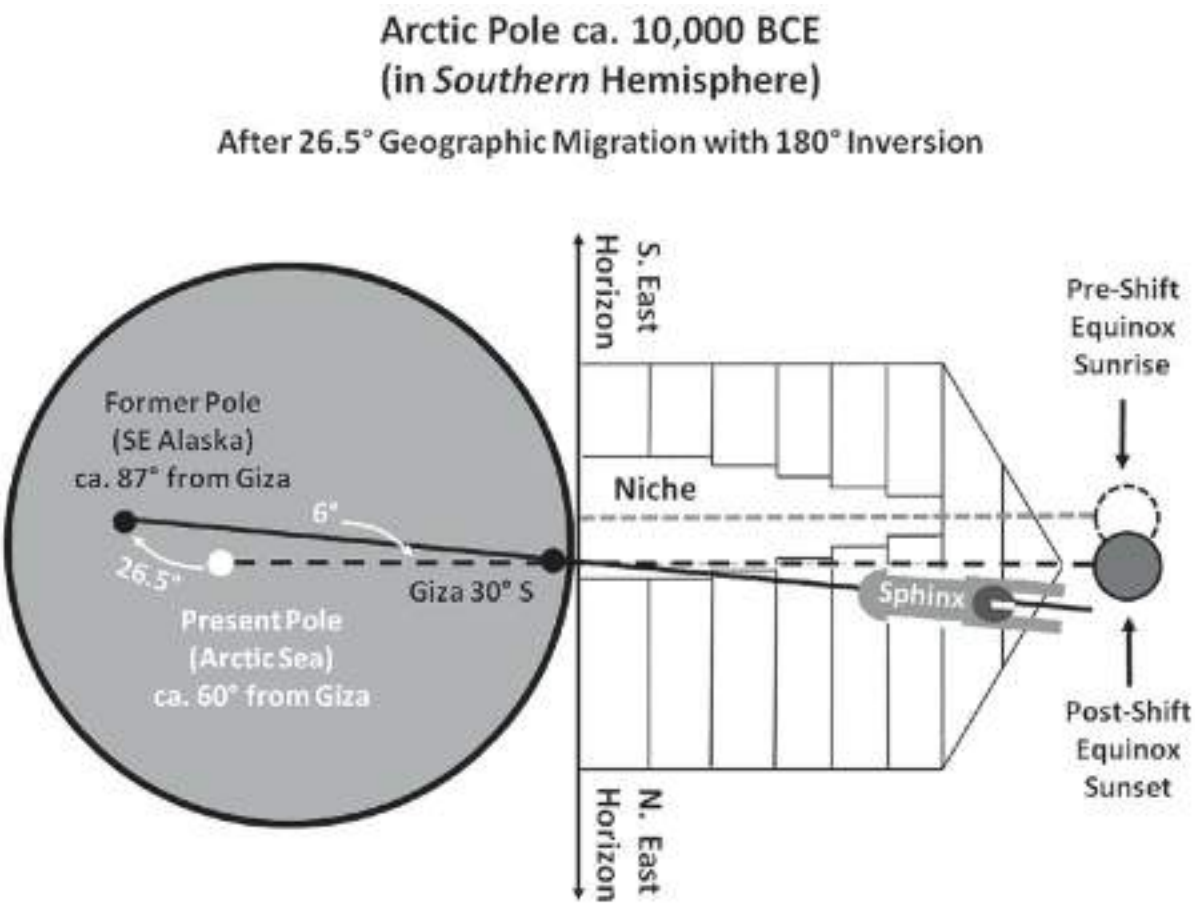

Figure 3.15. As the Earth completes its 180° inversion, this results in the Arctic Sea being relocated to the planet's polar axis and Giza rising in latitude by 26.5° but now situated at 30° south of the equator. From the perspective of the Southern Hemisphere, the sun now sets 6° to the left of the Sphinx (and rises in the west). The niche in the Queen's Chamber may have been constructed at this post–pole shift time to mark the former (pre–pole shift) rising position of the sun.

The Subterranean Chamber and the Ascending and Descending Passages

Just like the King's Chamber, the niche, and the star shafts, the Subterranean Chamber also presents the same 6° offset from the pyramid's central axis (fig. 3.16). If we consider that these three chambers are symbolic of Giza's changing latitude, then what we also observe is a mirroring (or inversion) of the Ascending and Descending Passages, perhaps indicating a 180° inversion of Giza itself. As Giza migrated in latitude by 26.5° (indicated by the Grand Gallery), it would reach its final position of 30° north of the equator. However, as the 180° Earth inversion progressed (perhaps indicated by the mirroring of the Ascending and Descending Passages), Giza would finally end up at 30° *south* of the equator.

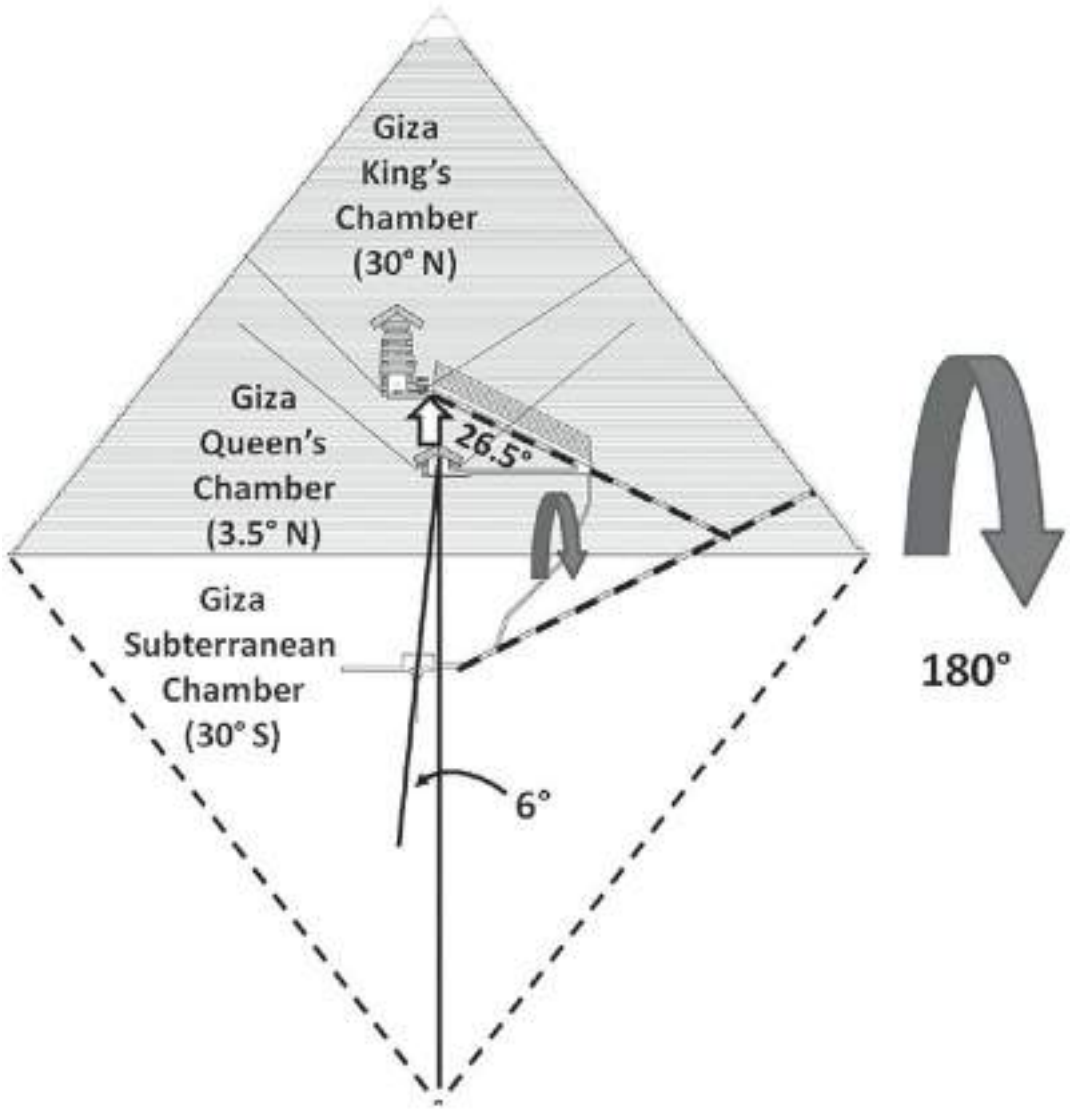

Figure 3.16. The Subterranean Chamber is also offset from the pyramid's central axis by 6°. The mirrored angles of the Ascending and Descending Passages of the Great Pyramid seem to hint also at a 180° inversion event whereby Giza, having migrated northward by 26.5°, also flipped its position from north to south of the equator.

After the shift was completed, the sun would now rise in the west and set in the east. Such an inversion could have occurred via a rapid true polar-wander event or via the tippe-top inversion method proposed by Peter Warlow. However the inversion actually came about, the end result would have placed Antarctica in the Northern Hemisphere while the Arctic Sea, as a result of its additional 26.5° migration, would have replaced southeastern Alaska as the new (Southern Hemisphere) pole (fig. 3.17).

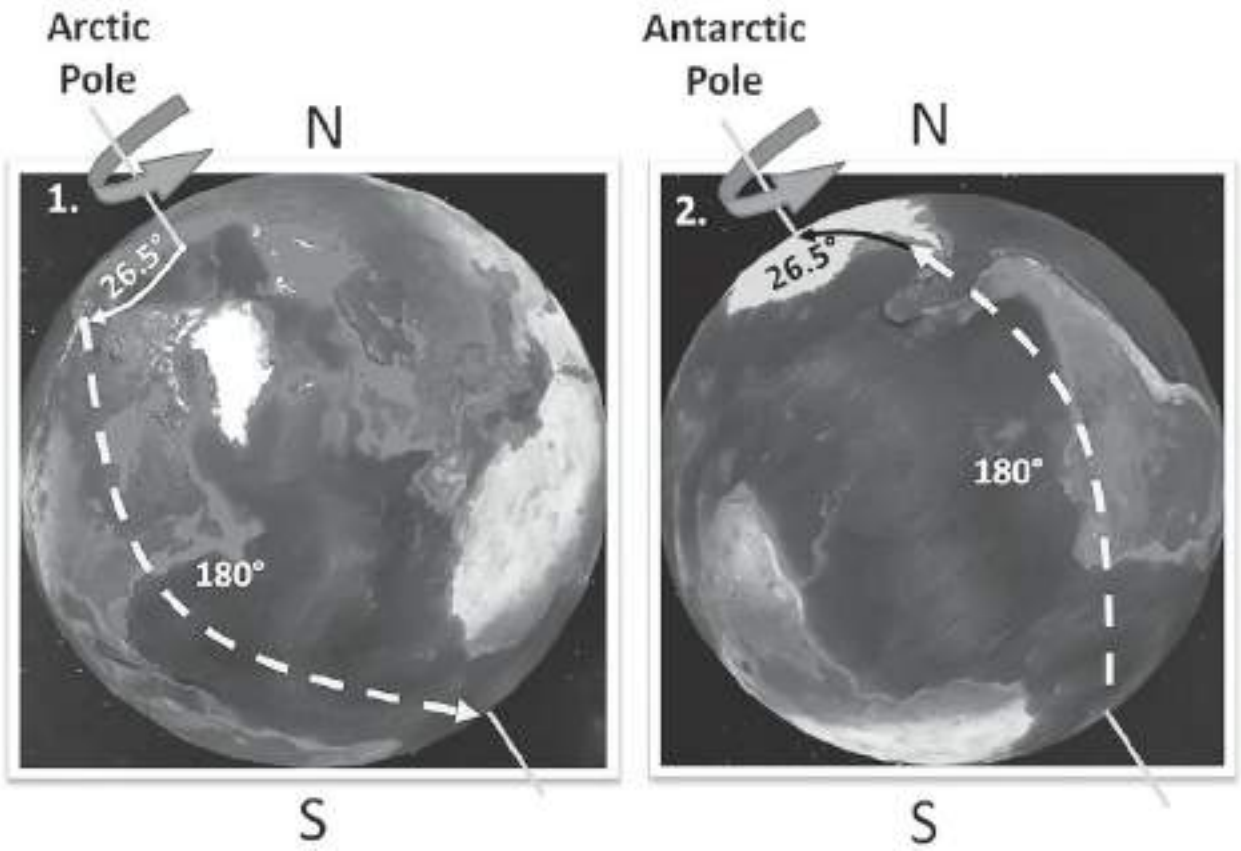

Figure 3.17. With the Arctic Sea having migrated 26.5° toward the Earth's axial rotation and as a consequence of the Earth's 180° inversion, this region will now become the new Southern Hemisphere pole with Antarctica becoming the Northern Hemisphere pole.

Facing the Dawn

With the Sphinx having originally been built to face the dawn on the eastern horizon, it seems that the ancient Egyptians must have held a great reverence for this particular cardinal direction, perhaps seeing it as the "place of rebirth," symbolized by the daily rising of the sun. However, a very curious feature of the Dream Stele, an epigraphic stone tablet that has stood for thousands of years between the paws of the Sphinx, is that it depicts the monument facing in two (opposite) directions (fig. 3.18).

Since sunrise is to the east, why does the Dream Stele also show us the Sphinx facing in the opposite direction, west? Some believe this may indicate that a second sphinx is buried somewhere in the sands to the west of the present monument but, alas, no such discovery has ever been made. There is, however, another possible interpretation as to what this dual Sphinx image on the Dream Stele is depicting. If we look just above the head of each of these Sphinx drawings on the stele we notice the *akhet* hieroglyphic sign (in the dashed box) which Egyptologists believe represents the sun rising on the horizon. So here we have the Sphinx, observing the sunrise, in the east *and* in the west. This may also explain why the Sphinx carries the ancient epithet of *Horemakhet* or "Horus of the two horizons."

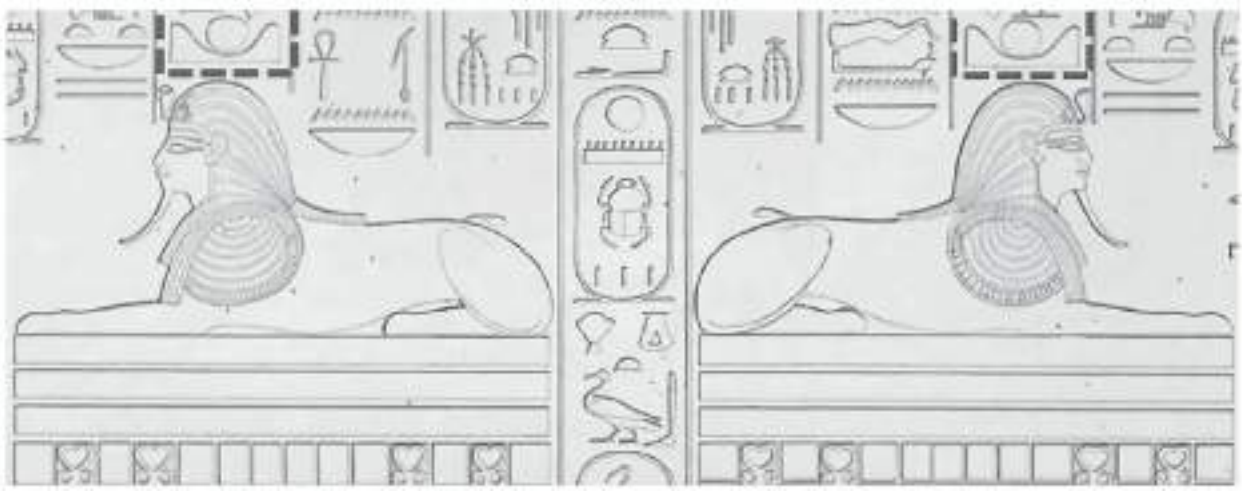

Figure 3.18. Drawing of detail from the Dream Stele that stands between the paws of the Sphinx at Giza. The stele depicts the Sphinx facing the rising sun on two opposite horizons. (Image based upon original drawing by Karl Richard Lepsius, 1842.)

Ancient Egyptians abhorred death and spent much of their life guarding against it, preparing instead not for their death but their afterlife. Accepting that the eastern horizon was regarded by them as the "place of rebirth," one might reasonably wonder why they built their pyramids on the west bank of the Nile, the west being the "land of the dead" and where the sun dies each day. Surely the east bank of the Nile, where the sun is reborn each day, would have been a more appropriate setting for monuments constructed to bring about the afterlife (be it that of the king or the kingdom).

Likewise, we might further wonder why in the so-called burial chamber of these pyramids, the sarcophagus was usually placed in the western end of the chamber, which, in our modern cosmology, is toward the setting sun. If the ancient Egyptians regarded these chambers not as burial chambers but rather as "chambers of rebirth," would it not then have been more appropriate for the so-called sarcophagus to have been placed in the eastern end of the chamber where the sun is reborn each day?

This idea of the eastern horizon as the revered "place of rebirth" is further supported by the evidence of the large numbers of mummies that have been discovered in Egpyt with their faces turned toward this particular horizon. But if, as the ancient Egyptians tell us, the sun once rose in the west, would we then not also find many burials with mummies facing toward this long-forgotten rising sun of the western horizon? In this regard, Egyptologist Kathryn A. Bard, writes:

> Brunton excavated about 750 Badarian burials, most of which were contracted ones in shallow oval pits. Most burials were placed on the left side, facing west with the head to the south. . . .
>
> Orientation of many burials was random, but the later burials in the Wadi Digla were contracted ones, placed on the right side and oriented with the head to the south facing east, unlike those recorded at Naqada, which had the head to the south facing west.[19]

Of course, the orientation of a dead body within its grave would most likely be influenced by the customs and beliefs of the particular culture involved. All that is being said here is that a reverence of the rising sun seems to have been a widespread and predominant practice throughout the entire corpus of known ancient Egyptian history and that this reverence was linked to the deeply spiritual concept of the sunrise symbolizing rebirth and the afterlife. As such, it may then be possible that the numerous west-facing burials that have been found in Egypt (most of which appear to be older burials) actually *were* buried facing the sunrise when the Earth was once upturned long ago and the sun rose in the west; it perhaps wasn't the burial custom of these different groups of ancient Egyptians that had changed but rather the direction of the dawn.

What all of this implies, of course, is that a second pole shift event (a 180° inversion with no geographic migration) must have occurred thousands of years later to reverse this geophysical configuration and to bring Giza to 30° north of the equator, the latitude it sits at today, so that the sun would rise in the east as it had before. We will see, shortly, some evidence that suggests that such a second event may indeed have occurred in (relatively) more recent times.

With everything having now been tilted another 180° (with no geographic migration occurring during this second pole shift event), we would find that the body of the Sphinx ends up aligned some five or six degrees north of due east, while the niche is now misaligned some 6° south of due east (fig. 3.19), the difference between them being around 12° as a result of the Sphinx having been aligned to due east (in the Northern Hemisphere) before the first pole shift event and the niche being aligned after that pole shift event (to mark the former position of the rising sun in the Northern Hemisphere). This same effect, of course, caused the same 12° difference between the King's Chamber's south shaft at an inclination of 45° and its north shaft at just 33°. And finally, as stated above, the burials that once faced the dawn on the western horizon would now face the sunset (the "land of the dead"), while the more recent burials would now face the dawn on the eastern horizon.

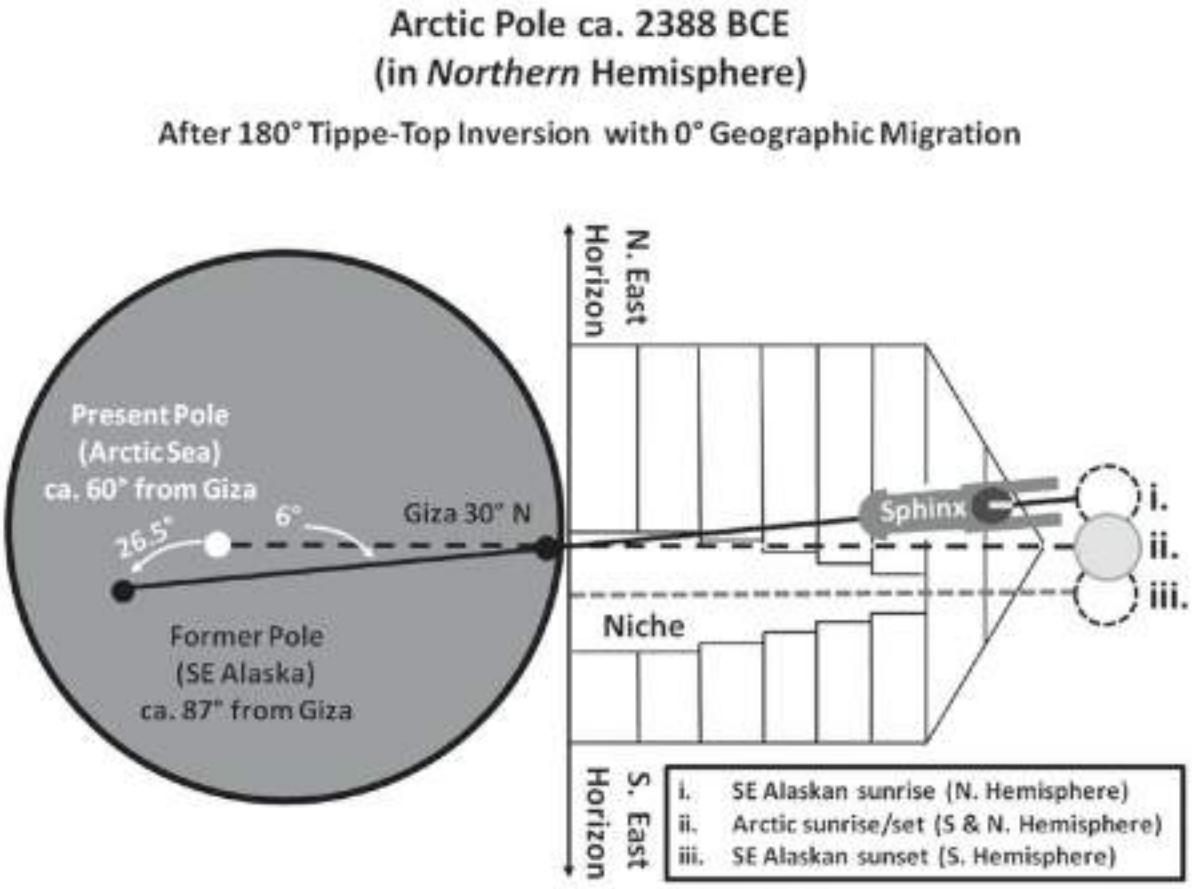

Figure 3.19. A second pole shift event reverses everything again. The sun once again rises in the east and sets in the west. The body of the Sphinx is now 6° or so misaligned toward the northeast, although its head would now have been reworked into that of the pharaoh to be facing due east toward the new equinoctial point. The niche also ends up misaligned by 6°, but to the southeast.

THE PATH OF THE POLE

Hapgood's original hypothesis regarding an Alaskan pole was probably quite correct, but with the caveat that all of the different locations that he had identified in the geological record for the Earth's former pole positions may actually have been part of one contiguous event, a single continuous spiral inversion, occurring over a much shorter and more recent period of time (figs. 3.20 and 3.21).

Figure 3.20. Hapgood's various locations for the Earth's former geographic pole, along with that of Gaffney (Baffin Island) and Carlotto (Bering Sea and northwestern Greenland), can be joined with a spiral.

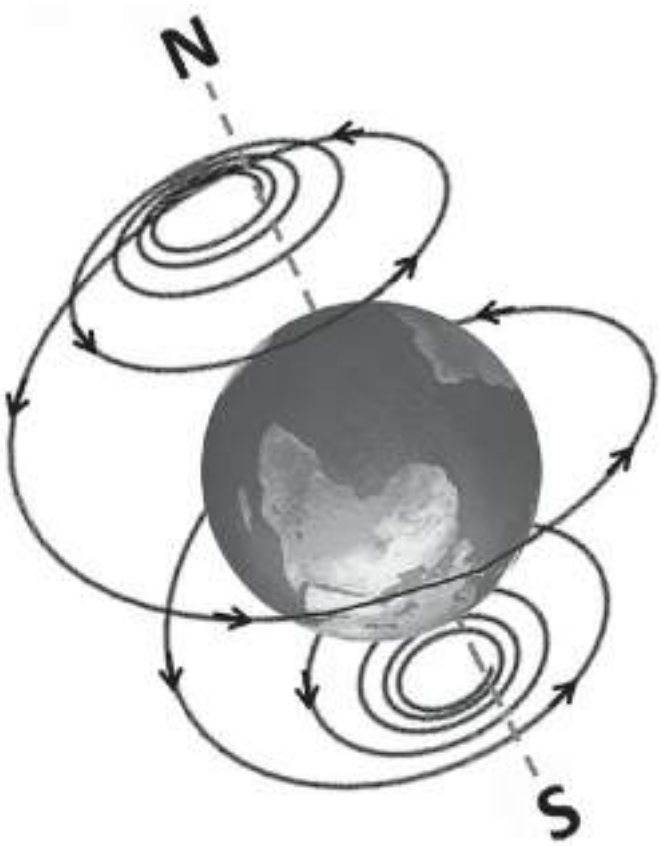

Figure 3.21. The Earth inversion occurs in a spiral motion, thereby conserving angular momentum. As the Earth inverts, its rotational axis remains fixed in stellar space; the axis does not invert with the Earth, which continues to rotate in its usual direction, resulting in the sun rising in the west and setting in the east.

If what the ancient texts are telling us is true and the foregoing astronomical interpretation of the Giza monuments is correct, then it seems that Giza was once located at around 3.5° north of the equator. In this pre-shift world, the Sphinx would likely have long existed, though probably with the body and head of a lion, and would have faced the equinoctial rising sun, due east. At just 3.5° north of the equator, Giza and the Sphinx would have been located in the Earth's equatorial region, with its heavy daily rainfalls, which might help explain the severe water erosion we find today on the Sphinx and its enclosure walls. This equatorial location of Giza, with its high rainfall, might also help explain some ancient maps that show the north-flowing Nile River with a major fork running westward from the main river toward the Sahara Desert and may further explain the "Green Sahara" or "African Humid Period," when the desert we see in this part of the world today was also much wetter and greener around 14,500 years ago.

After the tumultuous inversion event the Earth remained relatively stable for many thousands of years until around the twenty-fourth century BCE, when, as the Australian astronomer George F. Dodwell's research shows, it seems that the Earth was visited by a second pole shift event, possibly as a part of our planet's regular geophysical mechanics. This second event, however, appears to have been an inversion-only event of around 180° without any geographic migration (thus latitudes would have flipped but the cardinal directions would have remained the same, and thus the pyramids would have remained perfectly oriented to them). For the Earth to regain its easterly sunrise, the rotational axis must, once again, have remained in place (relative to the fixed stars) during this most recent shift event. And so, with this second inversion, Giza was inverted from 30° south to its present latitude of 30° north, and the sun, once more, would rise in the east and set in the west. The body of the Sphinx, however, would now be misaligned north of due east by five or six degrees, although its lion's head would probably have been reworked at this time into the head of the pharaoh to align with the new equinoctial eastern sunrise.

The Earth would undergo its most recent pole shift event around 2345 BCE, as observed by Dodwell (discussed below), a time that coincided with the demise of Egypt's Old Kingdom and other ancient contemporary cultures.

POLE SHIFTS: THE EVIDENCE

Other than the ancient texts that tell us of the stars wandering from their regular course and the Earth turning over, there is also the evidence presented by Charles Hapgood and other researchers of ancient pole shifts. Setting this aside along with the peculiar design features within the Great Pyramid that may be suggestive of such an event, what additional evidence might there be to support the view that these sudden and rapid geographic shifts of the Earth really did occur in remote antiquity?

The Dodwell Event

In the early twentieth century, an Australian astronomer, George F. Dodwell (fig. 3.22), presented scientific data to suggest that the Earth's geodynamic status was very different in ancient times. Commencing in 1934, Dodwell spent several decades doing intense research into the astronomical alignments of structures from all over the ancient world, and in 1963 he controversially concluded in the manuscript for his unpublished book that a sudden disturbance, a tilt of the Earth's polar axis, had occurred as recently as 2345 BCE, less than five thousand years ago.[*6] Dodwell demonstrated the proof of his controversial conclusion with the presentation of a logarithmic sine curve of ancient measurements that demonstrated a recovery of the Earth's polar axis from a major "disturbance."

Figure 3.22. The research of Australian astronomer George F. Dodwell showed that a disturbance of the Earth's rotational axis occurred circa 2345 BCE. (Photo courtesy of Barry J. Setterfield and the Dodwell family. Dodwell's original manuscript can be read at barrysetterfield.org.)

> The date of verticality of the curve, 2345 B.C. . . . coincided with an "irregularity," this being a large and sudden change in the inclination of the earth's axis. . . . The curve is therefore a certain and sure mathematical demonstration that in the year 2345 B.C., the earth's axis was suddenly displaced by a major impact. . . . It is a curve of recovery, with restoration to equilibrium after a disturbance; and it shows with certainty that a disturbance of the earth's axis occurred at the date 2345 it seems probable that the earth's rotational axis was suddenly changed by the force of impact in 2345 B.C., from an original inclination of about 5°, by an amount of about 21.5° to a new inclination of about 26.5°.[20]

Dodwell's research was detailed and extensive. While he mentions only the recovery from a major disturbance of the Earth's axial tilt, this is not to dismiss the possibility that this axial disturbance was but the legacy or signature of a much greater and perhaps more recent inversion event. After such a major inversion, our planet would, undoubtedly, have gone through many centuries of geophysical "convulsions" of the type observed by Dodwell.

Of particular interest in Dodwell's findings is that his date of 2345 BCE for this disturbance of the Earth's axis coincides with the rapid decline of the ancient Egyptian civilization into a so-called dark age known as the First Intermediate Period. This date would also coincide with the demise of a number of other contemporary early Bronze Age cultures such as the Akkadian empire, and, curiously, it is also within a few years of the date the biblical scholar James Usher gave for the Flood of Noah, circa 2349 BCE.[21] Could it be that these major flooding events of the Earth are somehow linked to the Earth tipping over? The general dating of Dodwell's axial tilt disturbance is supported also by the earlier research of Georges Cuvier, who, writing in 1812, states, "I agree, therefore, with MM. DeLue and Dolmieu, in thinking, that if any thing in geology be established, it is, that the surface of our globe has undergone a great and sudden revolution, the date of which cannot be referred to a much earlier period five or six thousand years ago; that this revolution overwhelmed and caused to disappear the countries which were previously inhabited by man."[22]

Now if, as Egyptologists insist, the Great Pyramid was constructe48d around 4,500 years ago (ca. 2550 BCE), then the geophysical data that appears to be encoded into the monument cannot relate to Dodwell's shift of around 2345 BCE (since this event had yet to happen). What the Dodwell findings further suggest is that these great upheavals of the Earth are not at all an impossible or, indeed, abnormal occurrence in the geodynamics of the planet but, on the contrary, would seem to be an inherent feature of it, occurring by some natural but as yet unknown mechanism every so often in its geophysical life cycle.

The Orion Paradox

Another indication that a pole shift event occurred in remote antiquity also comes to us—albeit indirectly—from the research of American astronomer Virginia Trimble and Egyptian-born bestselling author Robert Bauval, each of whom was independently trying to find ways of dating the Giza pyramids using the science of archaeoastronomy.

In 1963, Trimble made an intriguing observation that she believed might assist in helping to date the Great Pyramid (and, by extension, its contemporaries). She calculated that circa 2550 BCE the 45° inclined angle of the shaft that runs from the south side of the pyramid's King's Chamber would have precisely aligned with the star Al Nilam, the center star of Orion's Belt (fig. 3.23).

This discovery was welcomed by Egyptologists as confirmation of the pyramid's age and, since he is believed to have ruled Egypt at this time, circumstantial evidence that the Great Pyramid had been built as the tomb and recovery instrument of the Fourth Dynasty pharaoh Khufu and that this particular shaft had been crafted within the pyramid's superstructure in order to direct the king's soul toward the Orion constellation, which the ancient Egyptians believed to be the stellar personification of Osiris, their god of rebirth and regeneration. In their acceptance of Trimble's stellar altitude-alignment theory for these shafts, Egyptologists essentially were—perhaps unwittingly—acknowledging the idea that the star shafts of the Great Pyramid could (in theory) be used to date the monuments via stellar alignments. And they may not be wrong in this belief because, as we may recall, the Coptic-Egyptian legend of Sūrīd tells us, "The king, also, deposited the instruments, and the thuribula, with which his forefathers had sacrificed to the stars, and also their writings; likewise, the positions of the stars, and their circles; together with the history and chronicles of time past, of that, which is to come, and of every future event, which would take place in Egypt."[23]

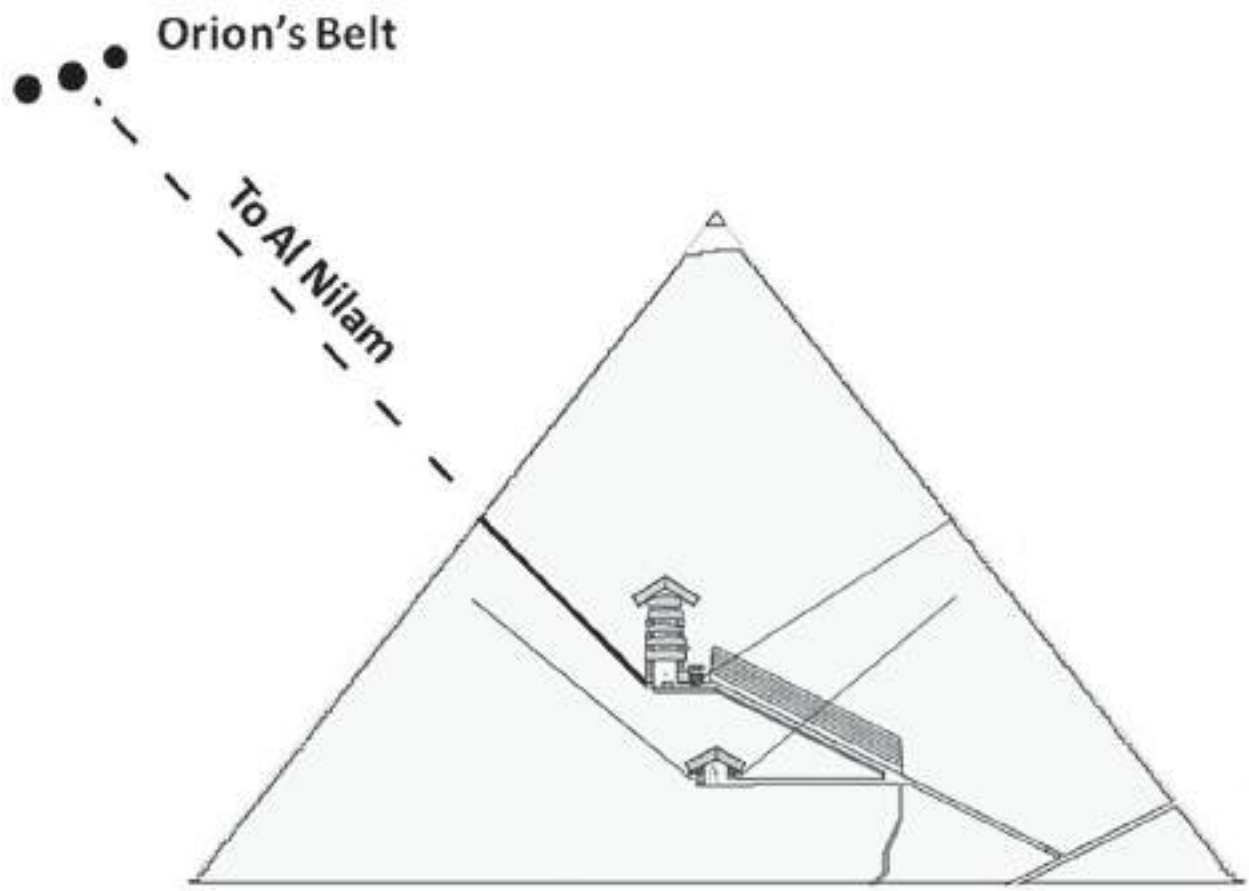

Figure 3.23. Virginia Trimble discovered that the south shaft of the King's Chamber, which is inclined at an angle of 45°, would have aligned with Al Nilam, the center star of Orion's Belt, around 2550 BCE.

Some thirty years later, however, matters took something of a dramatic twist when, in 1994, Bauval and coauthor Adrian Gilbert published their international bestselling book *The Orion Mystery*, in which Trimble's star-shaft altitude-alignment dating theory was essentially challenged when Bauval presented his Orion correlation theory as an alternative means of using the Orion Belt stars to date the Giza pyramids. Bauval realized that not only do the belt stars change their altitude in the sky by moving up and down like an elevator when observed due south over a long period of time (as a result of the Earth's slow precessional motion), but that the line of three belt stars also tilts or pivots back and forth, creating a different angle in the heavens as the stars slide up and down the southern meridian over this lengthy precessional year (which lasts around twenty-six thousand calendar years and is sometimes referred to as the Platonic Year or Great Year).

Bauval realized that if the three main pyramids at Giza represented the three stars of Orion's Belt, then the builders may have placed the pyramids on the ground with the same pivot angle that the belt stars possessed on the southern meridian at the time the monuments had been planned, thereby effectively encoding into them a date stamp for their construction (or at least, in Bauval's view, a date stamp for their design).

And so, with this idea in mind, Bauval set about measuring the angle of the line through the apexes of the two largest Giza pyramids (G1/Khufu[*7]–G2/Khafre), and he found the angle of this line (from the north) to be around 43.20°. He then fired up his star-mapping software (Skyglobe 3.5)[†8] to find when the angle of a line through the two counterpart stars in Orion's Belt (Al Nitak and Al Nilam) had been pivoted on the southern meridian (due south) with the same 43.20° angle, thereby matching their terrestrial pyramid counterparts. Bauval probably expected his belt-pivot dating method to match the circa 2550 BCE date that Trimble had previously obtained using her star-shaft altitude-dating method. However, the Egyptian researcher was in for something of a shock. After he entered the various parameters into his star-mapping software, the program instantly gave Bauval the extraordinary, puzzling,

and somewhat contradictory result for his belt pivot alignment method—circa 10,500 BCE[‡9] (fig. 3.24).

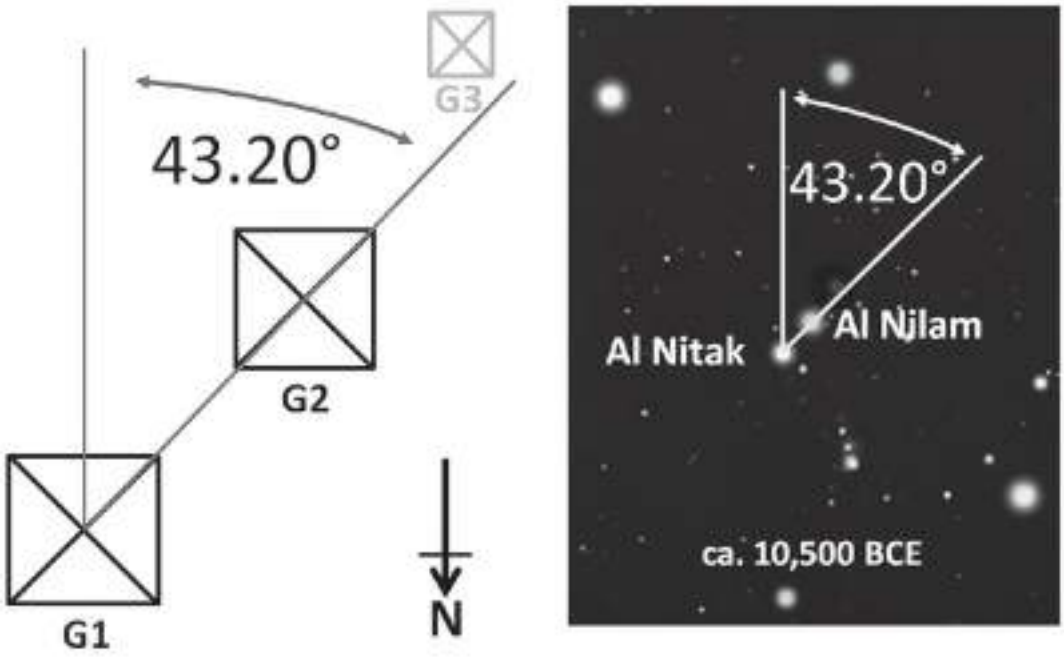

Figure 3.24. Bauval's astronomy software showed that the G1–G2 pyramid angle of 43.20° matched the same pivot angle in the equivalent belt stars (due south) circa 10,500 BCE.

And so, while the south shaft of the King's Chamber aligned with the belt star Al Nilam circa 2550 BCE (using Trimble's star-altitude dating method), oddly, Bauval's dating method using the pivot angle of the belt stars at 43.20° (matching the pivot angle of the pyramids) indicated a much greater age of circa 10,500 BCE, making the monuments around eight thousand years older than the conventional pyramid construction date of circa 2500 BCE. Even Bauval struggled to adequately explain his controversial and somewhat perplexing finding since he himself had always accepted the orthodox pyramid chronology.

But in this alignment discrepancy between the different dating techniques of Trimble and Bauval, we may, in fact, be observing a dichotomy that presents to us a more profound hidden truth, a finding that may offer support to the controversial claim in the Coptic-Egyptian oral tradition that the stars wandered from their regular paths across the heavens.

What must be observed and stressed here is that—theoretically, at least—the two different stellar dating techniques used by Trimble and Bauval should have arrived at the *same* date since the builders would almost certainly have observed and encoded both of these alignments from a single observation of the belt stars (fig. 3.25).

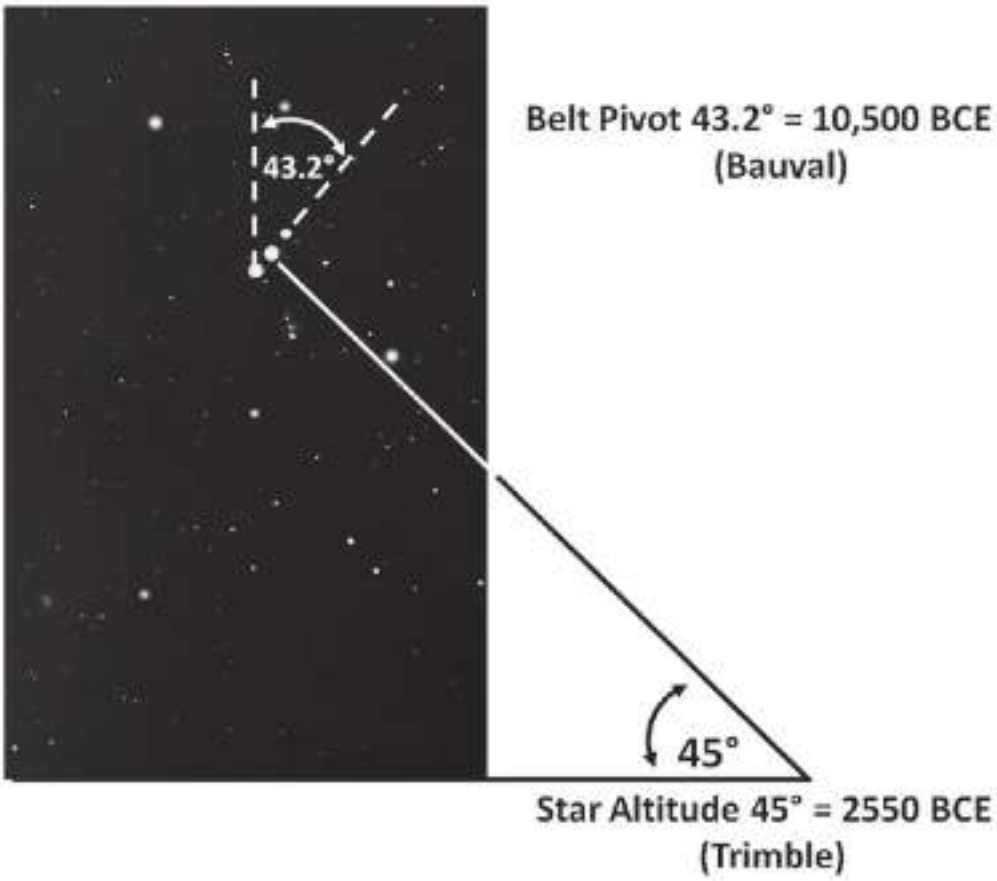

Figure 3.25. Both the altitude of the selected belt star (Al Nilam) at 45° and the belt-pivot angle at 43.2° could easily have been recorded by the builders during the very same stellar observation and this data then encoded into the Giza monuments.

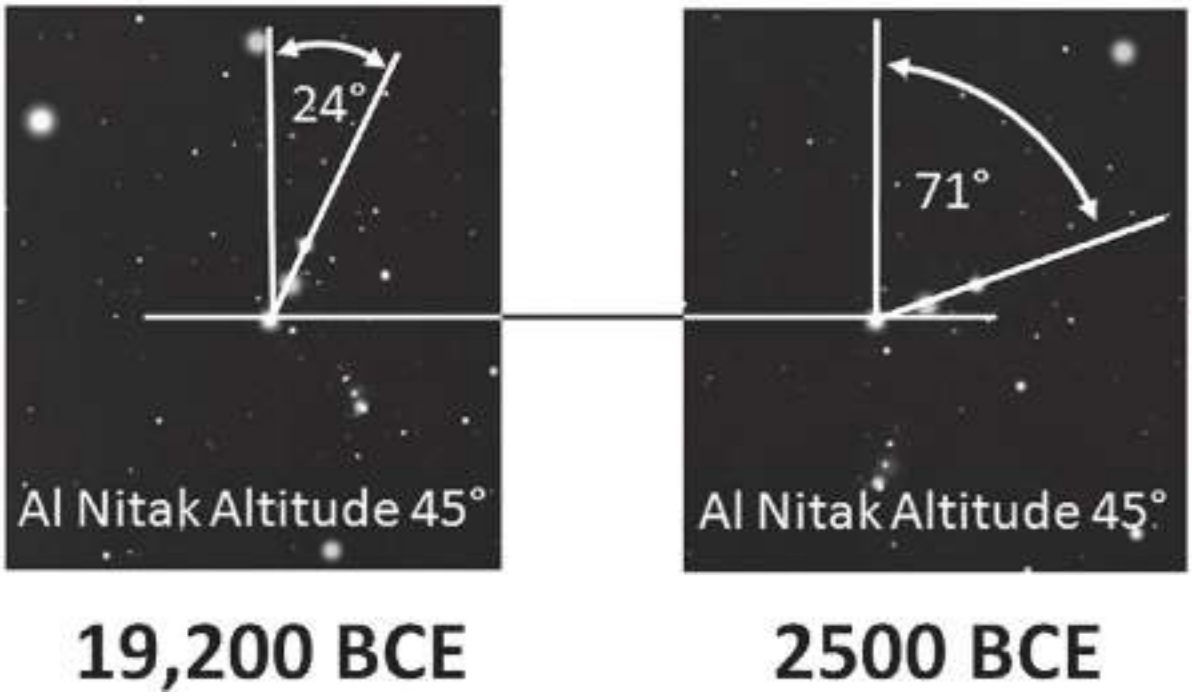

Figure 3.26. The belt star Al Nitak reaches an altitude of 45° on the southern meridian on two occasions within one full precessional cycle. Previously these occurred circa 19,200 BCE and then again circa 2500 BCE. Only by including the belt pivot, which is different on each of these two dates, in conjunction with the altitude angle, can the two possible dates be differentiated and a unique and precise date marker set.

Indeed, encoding *both* alignments into the monuments from the very same observation would actually have been *essential* because only then is it possible to generate a unique stellar date stamp from within the full 26,000 year precessional cycle (fig. 3.26).

Without being overly technical, this unique astronomical date marker arises because the relative rate of change between the altitude and pivot of the belt stars occurs at slightly different speeds, meaning the two alignments can only ever converge on just one occasion per full precessional cycle (or longer). As such, when we find the date for one of the two alignments, we should, automatically, arrive at the very same date for the second alignment since, as stated, both alignment observations would almost certainly have been made (and encoded) from the very same observation. Instead, however, what we find with the Trimble and Bauval alignment observations at Giza is a paradox, an inexplicable mismatch between the two alignments of some eight thousand or so years that is truly puzzling. Realistically, this time gap simply should not exist.

The first question to ask here, of course, is whether there was ever a time in our remote past when the two different alignments observed by Trimble and Bauval *could* have been observed in the belt stars at the very same moment (i.e., a time when these two alignments converged on the same date). If so, then how far back must we turn the heavens for these two alignments we find encoded into the Giza monuments to simultaneously match their stellar counterpart alignments in Orion's Belt? And, of course, if such a condition could be found, then how old might this make the Giza monuments?

LOST IN TIME

In consideration of this question, an analysis of the historical precessional motion of the belt stars over one hundred thousand years (that is, four full precessional cycles) was made using star-mapping software (Stellarium v.0.19.1), and strangely, no date was found in all that time when these two alignment conditions between sky and ground

converged on a single date. Certainly over this lengthy period we can obtain a number of dates when each of the three belt stars took a turn at reaching an altitude of 45° on the southern meridian. And yes, we can also find several dates when Orion's Belt was pivoted at 43.20° due south. However, all instances of pivot date and altitude date are separated from each other by many thousands of years, with no convergence of the two ever occurring. There are three possible means to explain this failure to find a convergence date:

1. One or both of the stellar alignments presented by Trimble and Bauval do not actually exist in reality; that is, the builders did not create any deliberate stellar alignments using the belt stars at all, and Bauval's pyramid angle (G1 apex–G2 apex) and the various angles of the star shafts are perhaps merely arbitrary or served some otherwise unknown symbolic function.
2. The convergence date of the Bauval-Trimble dual alignment is so ancient that it goes beyond the one-hundred-thousand-year limitation of the currently available, commercial star-mapping software.
3. If the star shafts do represent a shift of the stars in ancient times (perhaps indicating a pole shift event), then since the time the Bauval-Trimble alignments were first created, a subsequent pole shift event has occurred (as Dodwell's research appears to show) that has effectively overwritten or wiped clean the Earth's former geodynamic parameters (which were encoded into the pyramids), thereby giving the Earth a new (different) set of precessional parameters from those it had before. These new properties of our Earth and cosmos are, naturally, coded into our modern star-mapping software but not into the Giza monuments, which were set in a pre–pole shift world that possessed different geodynamic properties. In short, we may be trying to reconcile the Bauval-Trimble stellar alignments using Earth's present geodynamic properties, which simply did not exist at the time of the pyramids' construction; it's a bit like trying to turn a lock using the wrong key. This further proves, conversely, that the Great Pyramid could not have been built after Dodwell's circa 2345 BCE axial shift event because, were that the case, then the Bauval-Trimble alignments *would* reflect the Earth's present orbital mechanics and we would then have been able to reconcile them to a single date.

   Put simply, that we *cannot* reconcile these two alignments to a single convergence date suggests that two pole shift events occurred in our ancient past, the second (most recent) event erasing the geodynamics of the Earth that had prevailed beween the first and second shift events.

While it is certainly possible that these alignments observed by Trimble and Bauval may have no stellar significance and could be purely symbolic or arbitrary in nature, it is hard to see that this is the case; even most Egyptologists accept that the shafts of the Great Pyramid likely have a stellar function of some kind, albeit one related to the ancient Egyptians' religious beliefs. Could the pyramids be more than one hundred thousand years old? Two points suggest not:

1. Manual calculations beyond the one-hundred-thousand-year limitation of current star-mapping software show that, as we move ever further back in time, the belt stars lose their familiar "dogleg" pattern, and the close correlation we observe today between stars and pyramids completely breaks down.
2. The ancient Egyptians themselves dated the origins of their civilization only to as far back as thirty-nine thousand years ago. (This great age is, of course, contested by Egyptologists, who consider it merely as mythological.)

And so, if we cannot find the Bauval-Trimble convergence date in our star-mapping software within the last one hundred thousand years (or beyond), then all we are left with to explain its absence is a more recent pole shift event—an event that Dodwell's calculations tell us occurred circa 2345 BCE.

What we may be witnessing with these two different alignment dates presented by Bauval and Trimble is actually the end result, the net effect, and the effective proof of a more recent pole shift event that effectively decoupled the builder's original single alignment date, splitting it into the two separate alignment dates that Bauval and Trimble independently observed in the monuments today. As a result of the more recent inversion event (i.e., the Dodwell event of circa 2345 BCE), the alignments simply cannot now converge on a single alignment date within our current precessional cycle.

Turning Giza on Its 'Ed

One of the very earliest criticisms of Bauval's Orion correlation theory (outlined above) was that the relative positions of the pyramids on the ground at Giza did not correspond to the belt stars' relative positions in the sky. The most vocal critic in this regard was Ed C. Krupp of the Griffith Observatory in Los Angeles. In October 2001, Krupp wrote the following critique of the Orion correlation theory:

> In *The Orion Mystery*, Robert Bauval and Adrian Gilbert identified the three main pyramids at Giza as a symbolic representation of the three stars in the Belt of Orion. They fortified this conclusion by pairing an aerial photograph of the three pyramids, which appear as a diagonal line across the page, with a telescopic photograph of Orion's Belt. Those stars follow a similar diagonal across the page. In pondering the two photographs, I realized the image of Giza is presented with south at the top of the page. In the picture of Orion's Belt, north is at the top of the page. Because Bauval and Gilbert treated Giza as a map of the sky, the matching of north in the sky with south on the ground seemed odd. . . .
>
> To map the sky on the ground in a way that matches the pattern of stars we see in the sky (and so preserves the geometry), it is necessary to invert north in the sky with respect to north on the ground. In a sense, this can be accomplished by "sliding" Orion down the meridian to the southern horizon and pulling it north, feet first (south) across the ground. This procedure is, in fact, what Robert Bauval, Graham Hancock, and Dr. Roy do when they say "Just look south" to make Orion's Belt look like the plan of Giza. This is why the two photographs in *The Orion Mystery* put north on opposite sides of the pages.
>
> You can, then, match Orion to Giza by looking south, but you invert the cardinal directions of one map or the other to do it. In this kind of mapping (just face south), the angle of the "Belt" of pyramids is okay, but north in the sky is mapped to the south on the ground. This is equivalent to turning Egypt upside down, and that is what I have said in publications, correspondence, lectures, and on television.[24]

While Krupp is technically correct here, Bauval (and Hancock) invoke artistic license to the correlation by imagining the belt stars of the southern sky being pulled down from the sky to the southern horizon and then, like a roller blind, pulled northward over the ground. It works and is arguably the most intuitive way of representing the belt stars on the ground, but as Krupp pointed out, it does, nevertheless, invert the directionality of the belt stars, whereby Al Nitak is observed nearest (lowest) to the southern horizon, but its terrestrial counterpart on the ground at Giza, the Great Pyramid, is positioned farthest away from this horizon (relative to the other two main pyramids). The star Mintaka, on the other hand, being the highest of the belt stars, is farthest away from (or farthest above) the southern horizon, yet its terrestrial counterpart, the pyramid of Menkaure, is nearest to that horizon (fig. 3.27).

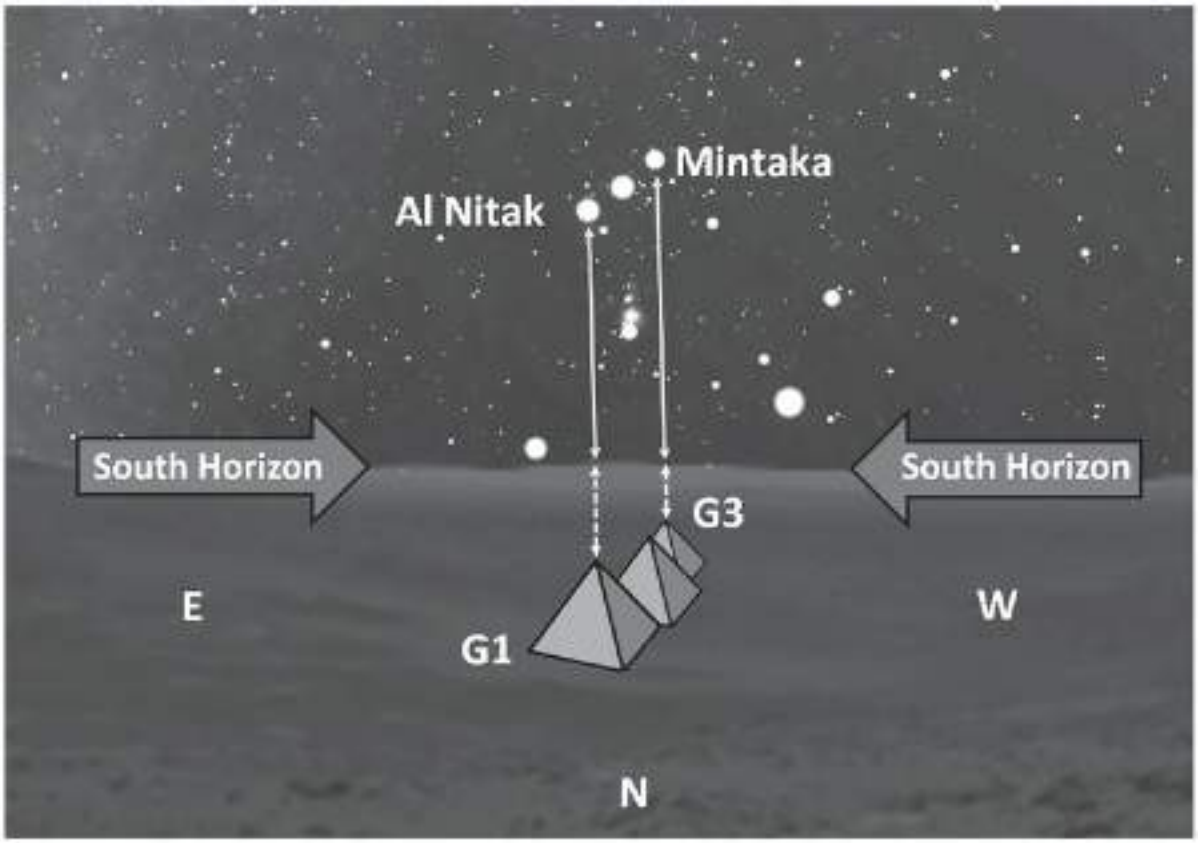

Figure 3.27. Ed Krupp noted that Robert Bauval's Orion correlation theory inverts the positions of the pyramids on the ground relative to the positions of the belt stars. The star Al Nitak, for example, is closest to the southern horizon, but its stellar counterpart, the Great Pyramid, is farthest away from this horizon (or farthest north).

Had the pyramids been positioned on the Giza plateau in accordance with a strict observance of each star's relative astronomical position above the southern horizon, then we might expect to see the arrangement of the Giza pyramids on the ground with the Great Pyramid (G1) placed nearest to the southern horizon and G3 farthest away from it (fig. 3.28).

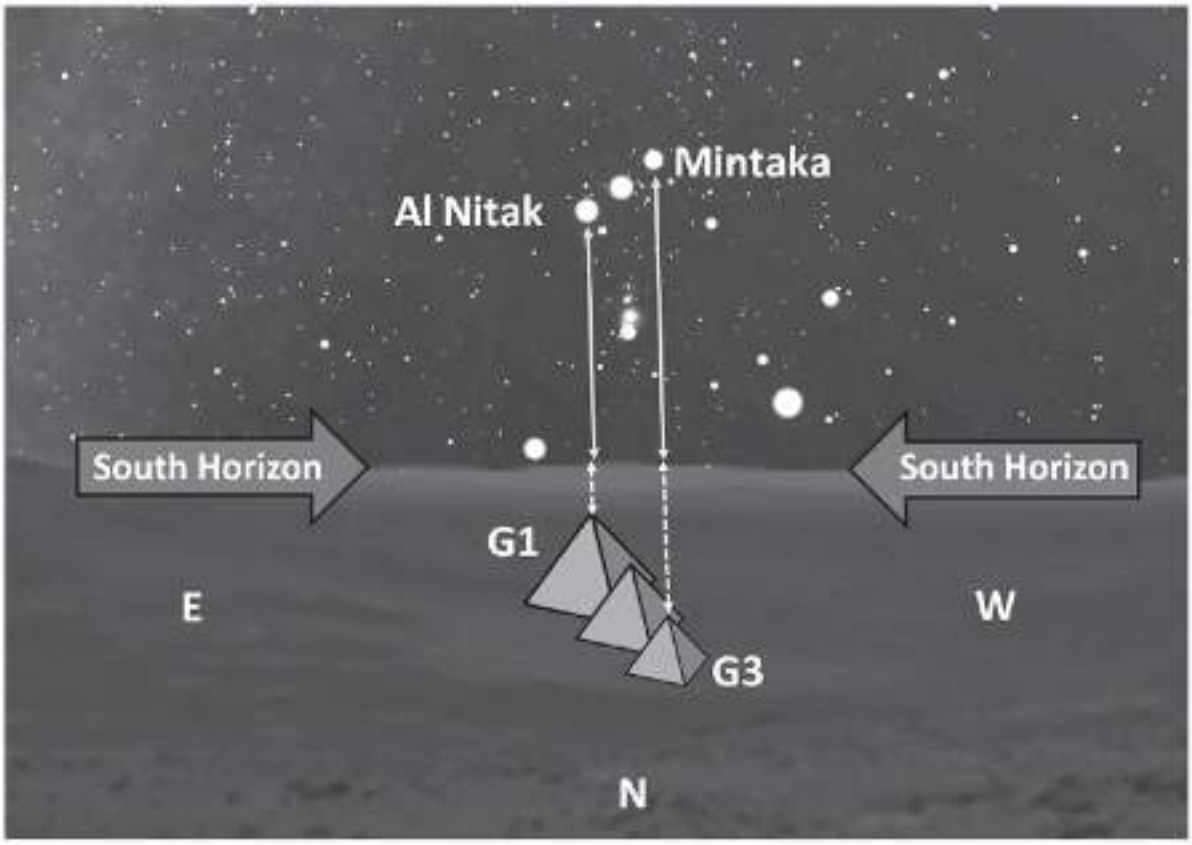

Figure 3.28. The pyramids of Giza as they might have looked had the builders more accurately represented the relative distance of each of the belt stars from the southern horizon.

But there is a rather obvious solution to this criticism of Krupp: we simply accept what the ancient texts tell us and invoke an Earth inversion in which Giza quite literally is turned on its head, just as Krupp said would be needed to make the correlation between the stars and the pyramids properly work (from a strictly astronomical perspective).

If we assume that the Earth circa 10,000 BCE had been fully inverted in the manner outlined earlier in this chapter (and there's more on this in chapter 7), then this would have thrust Giza to a latitude of 30° south. As a result of this, the belt stars would appear much, much higher in the night sky. Indeed, these stars would actually then be best viewed not by looking south (or north) but by looking up! The belt stars in this scenario would be found high above your head, close to the zenith (the center of the celestial dome) of the sky at an altitude of 69° (fig. 3.29). Ordinarily, looking up at the zenith of the sky and with north behind your back, you would then have west to your right and east to your left.

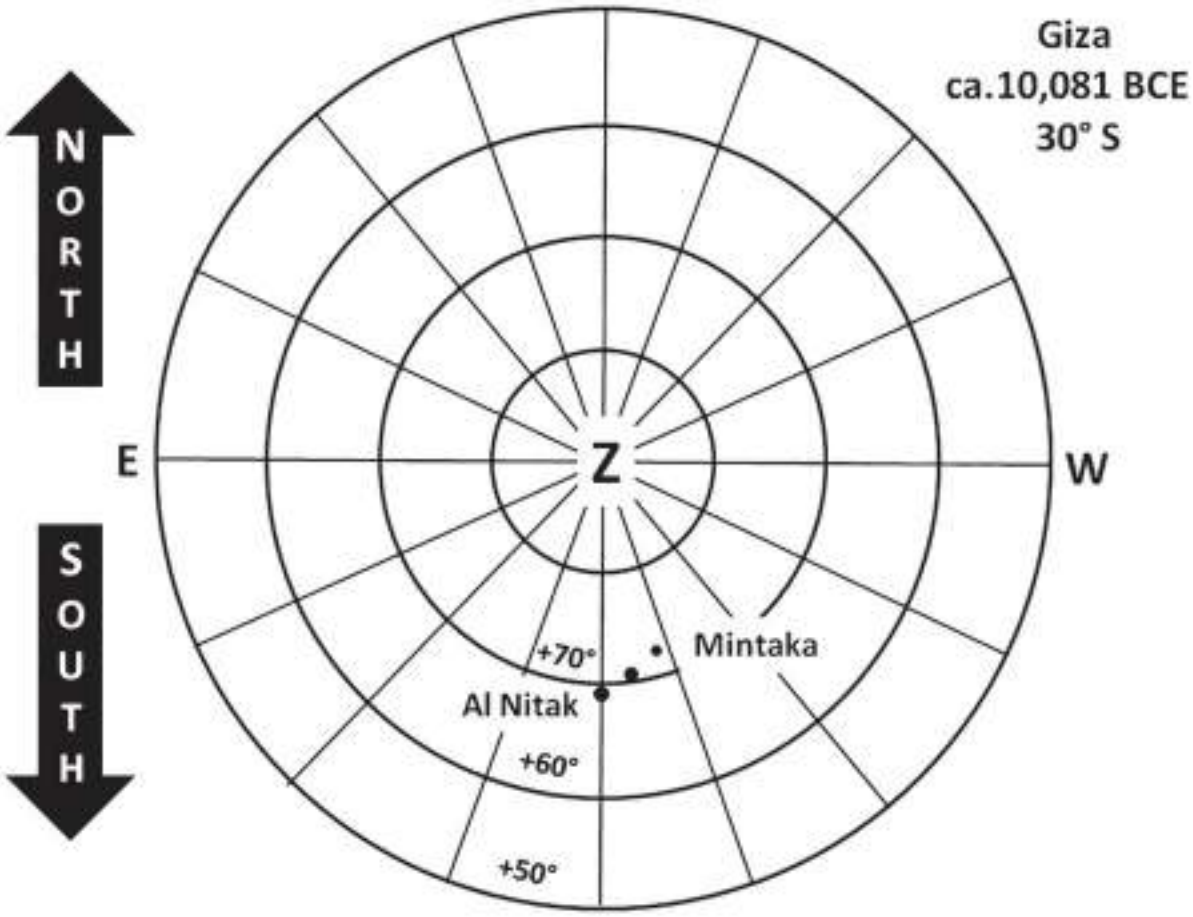

Figure 3.29. The celestial dome of the sky circa 10,000 BCE, with Giza at a latitude of 30° south, shows Orion's Belt overhead at an altitude of 69° (Al Nitak). Note that Al Nitak is nearest the south and farthest east on the celestial sphere while Mintaka is farthest north and west. (The reversed east and west cardinal directions shown here are simply a consequence of looking up at the sky grid with north to your back. If we made a rubber stamp of this sky grid image and then impressed it onto a sheet of paper, the impression becomes the reverse image of the master).

We can then project or mirror this sky grid onto the ground at Giza (fig. 3.30), being careful to map each star correctly to the cardinal directions (by keeping Al Nitak farthest south and east and Mintaka the farthest north and west). With the stars properly mapped onto the ground, this then becomes the plan on which to place and build the pyramids.

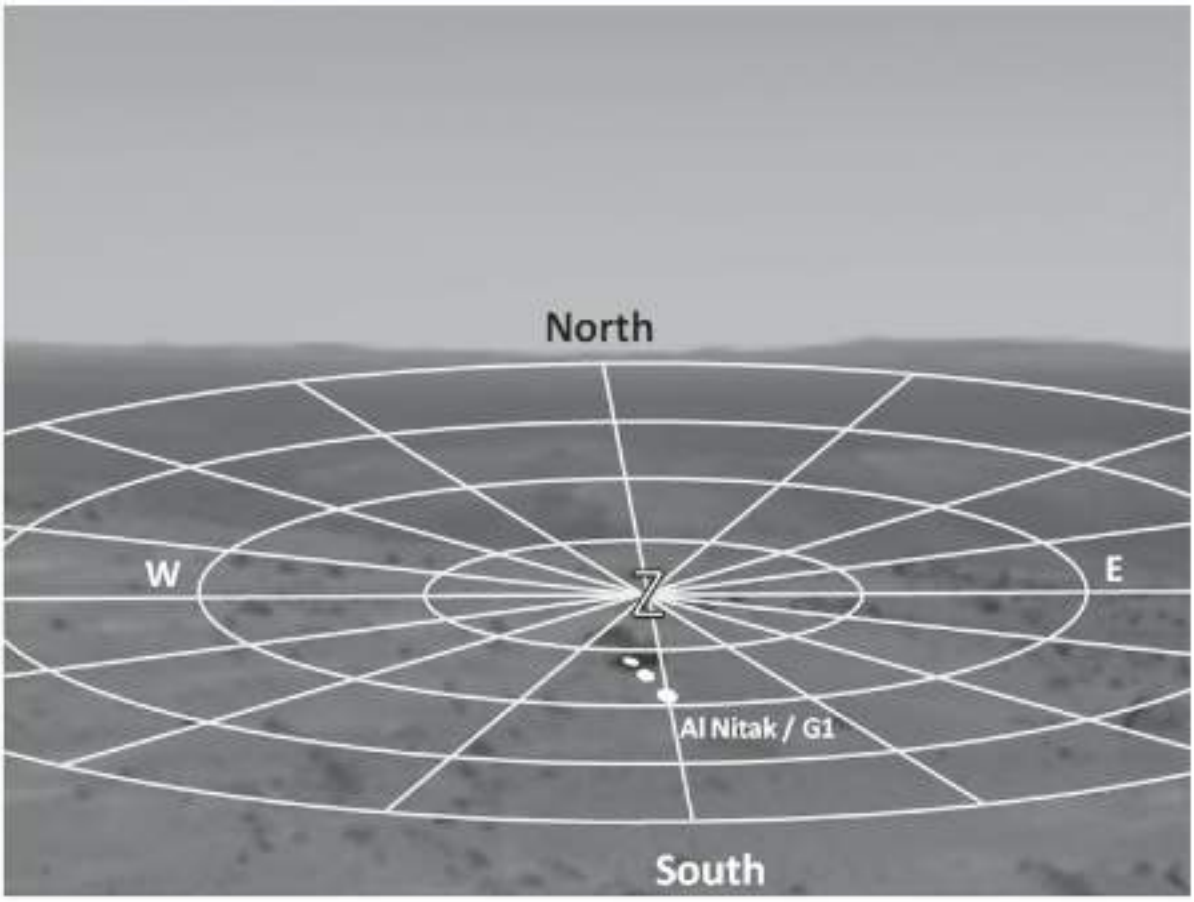

Figure 3.30. Mapping the sky grid onto the ground at Giza will place Mintaka farthest north and west while Al Nitak is placed farthest south and east.

If we now build pyramids according to our Orion's Belt ground plan (fig. 3.31, next page), we find that the Great Pyramid (G1) is placed farthest south and east of the other two pyramids, reflecting the relative position of Al Nitak (G1's stellar counterpart) in this upsidedown world, while Menkaure's pyramid (G3) is farthest north and west, reflecting the relative position of Mintaka. This positioning of the pyramids is, of course, a mirror of what we find at Giza today and is essentially what Krupp argued in favor of with his criticism of Bauval's Orion correlation theory.

When the last (and most recent) inversion event occurred, then the Earth (and Giza) inverted, Dzhanibekov style, back another 180° (or thereabouts), giving us the configuration we see at Giza today, with its contradictory Sphinx alignment, star-shaft alignments, niche alignment, and, of course, the peculiar Giza/Orion pyramid alignment. All of these alignment contradictions completely vanish when we simply imagine that the Sphinx was built prior to the first Earth inversion event, the pyramids shortly after this event, and then, thousands of years later, everything turned over again with a second 180° inversion to give us what we see at Giza today (fig. 3.32).

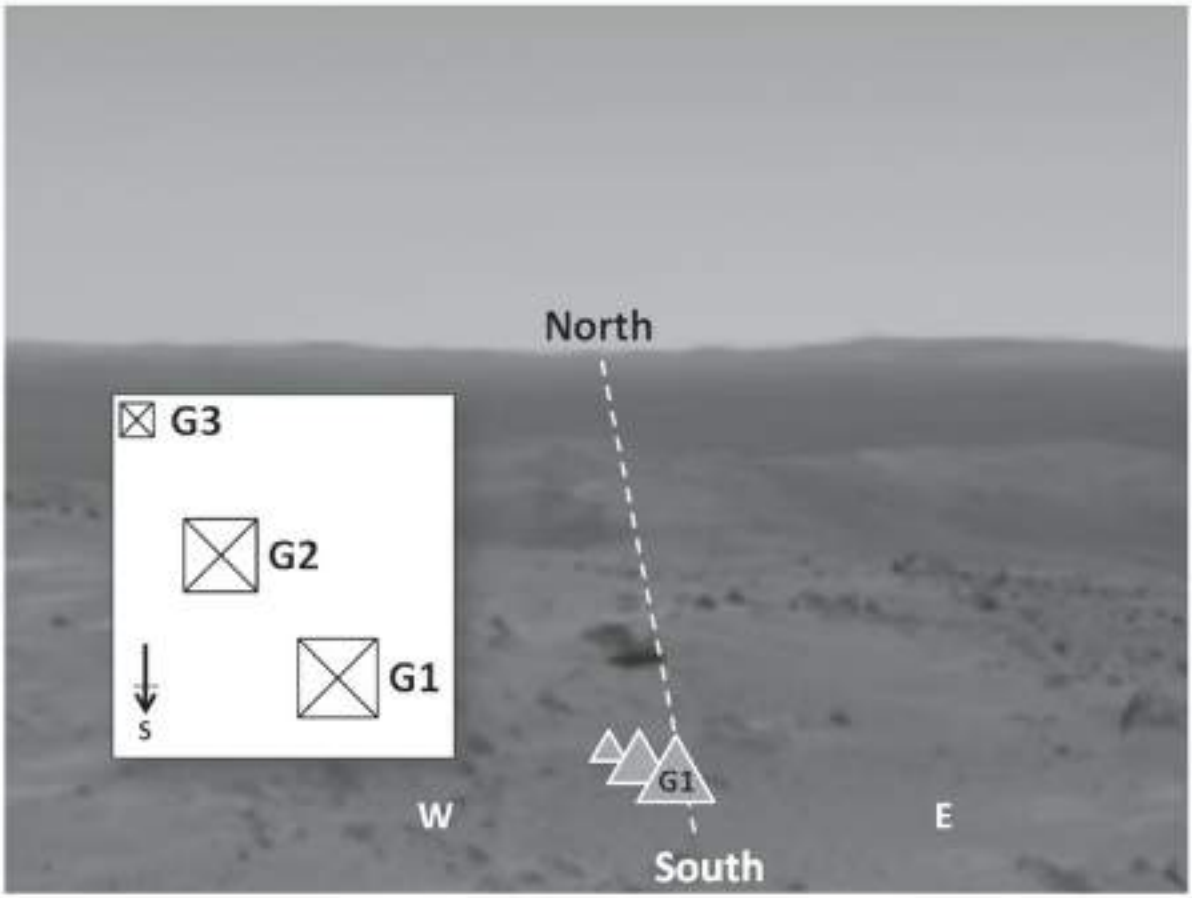

Figure 3.31. Building pyramids according to the Orion's Belt ground plan (from the southern hemisphere perspective) places the Great Pyramid the farthest south and farthest east of the other pyramids, the inverse of what we find today at Giza and what Krupp argued would make a more accurate astronomical correlation between sky and ground.

There is, of course, something of a deep irony to all of this. Krupp, in his criticism of Bauval's Giza-Orion correlation, may actually have unwittingly provided the master key to unlocking the entire Giza-Orion mystery, with its many associated alignment contradictions and paradoxes. His comment about having to turn Giza on its head to make the Orion correlation properly work may have been said by him in mocking jest, but in truth, if the pyramids were indeed correlated with Orion's Belt (as seems likely), then the inverted positioning of them we find at Giza today could, in fact, constitute actual physical evidence that the Earth, just as many of our ancient traditions tell us, was indeed inverted long, long ago and that this inversion occurred, not once, but (at least) twice.

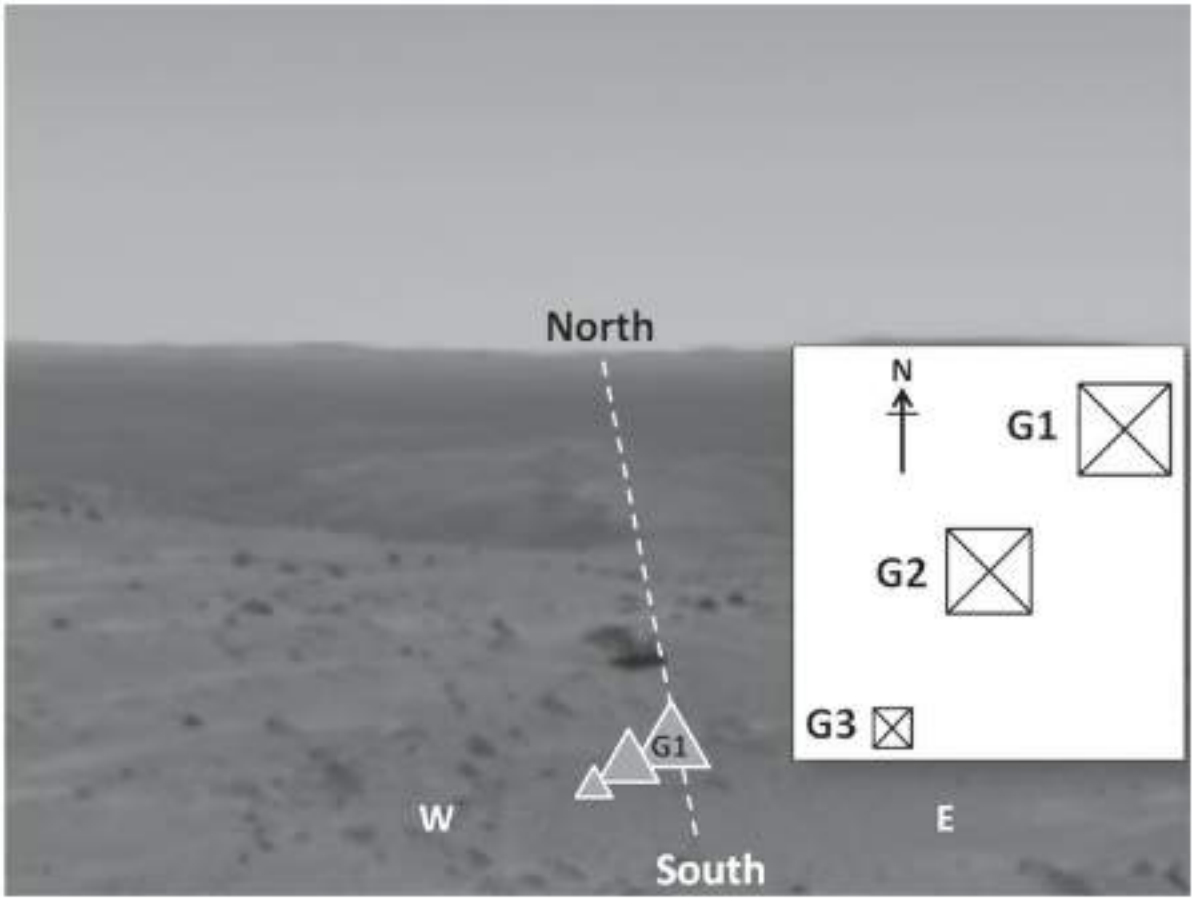

Figure 3.32. A second inversion event would have turned the Earth a farther 180° to give us the configuration we see at Giza today, with all of its alignment contradictions.

The Senemut Astronomical Ceiling

Our final piece of physical evidence pointing to a pole shift event having occurred in remote antiquity comes to us from the curiously oriented astronomical ceiling in the tomb of Senemut (fig. 3.33, p. 80), the architect of Queen Hatshepsut, who ruled Egypt circa 1500 BCE.

This astronomical ceiling is curious for a number of reasons. Of the five planets observable with the naked eye (Mercury, Venus, Mars, Jupiter, and Saturn), all are present in the ceiling's upper (south) panel with the exception of Mars. It is an omission that has caused debate and speculation even to this very day. However, the most curious aspect of the ceiling is its apparent inverted orientation, which was first noted in the 1930s by the astronomer and classical scholar Alexander Pogo, who writes:

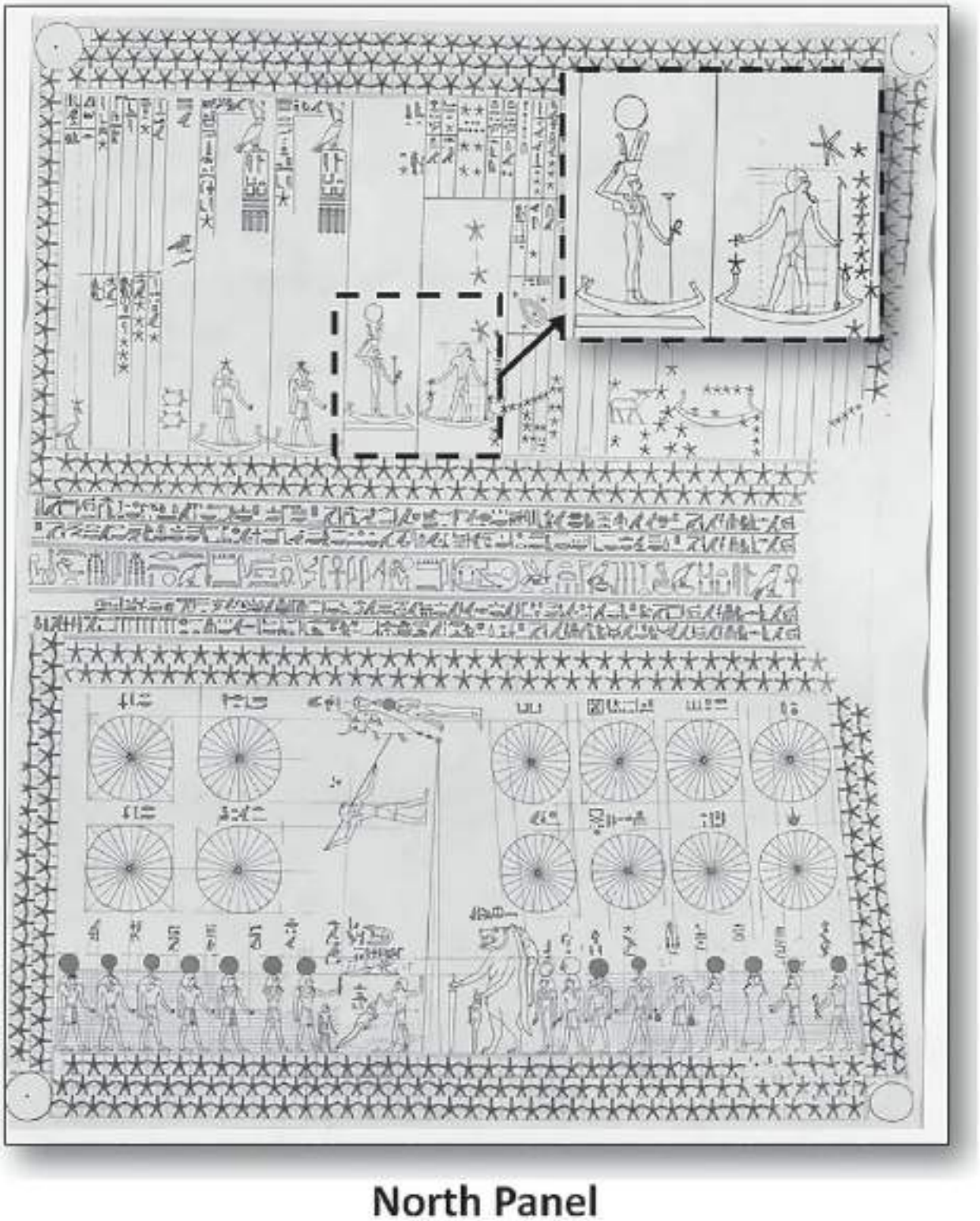

Figure 3.33. The Senemut astronomical ceiling consists of two panels depicting the constellations of the

northern (lower panel) and southern (upper panel) *skies. Sirius* (left) *and Orion* (right) *can be seen in the dashed box.*

> A characteristic feature of the Senmut ceiling is the astronomically objectionable orientation of the southern panel; it has to be inspected, like the rest of the ceiling, by a person facing north, so that Orion appears east of Sirius. . . .
>
> With the reversed orientation of the southern panel, Orion, the most conspicuous constellation of the southern sky, appeared to be moving eastward, i.e., in the wrong direction.[25]

The seeming reverse motion of the stars on this ceiling is highly peculiar indeed, and one might immediately consider it as some sort of ancient aberration, were it not for the fact that the perceived reverse motion of the stars here appears to be reinforced with the image of the demon/goddess Taweret (the expectant hippopotamus with the crocodile on her back) in the ceiling's lower panel. Typically, Taweret, in astronomical depictions, usually faces eastward (to the right), but in the Senemut ceiling, we find her facing westward (to the left).[26]

After extensive studies of the Senemut ceiling, the scientist and author Michael G. Reade observed further curious anomalies in the ceiling's astronomical layout, writing:

> Sirius towers above Orion on the southern panel; this is only possible when the world is upside-down (except in so far as a modern visitor to Antarctica could see something very similar). . . .
>
> At Thebes . . . Scorpius currently reaches a maximum altitude of about 20–40° above the southern horizon (the range of values is due to the considerable vertical spread of Scorpius when it is on the meridian); should the world turn upside-down, however, it would pass almost exactly overhead and Scorpius is actually found at the extreme top centre of the north panel of the Senmut ceiling, exactly where it should be if the world were upside-down. . . .
>
> Thirdly, given this upside-down situation, the ecliptic would pass slightly below Orion. (It passes above Orion for a northern hemisphere observer in a right-side-up world). The planets always appear to move along the ecliptic, and on the Senmut ceiling (southern panel) they are distinctly shown as floating along at a level slightly below that of Orion, exactly where they should be if the world were upside down.[27]

And finally, even Velikovsky was not without a view on this ancient astronomical artifact, concluding:

> The real meaning of "the irrational orientation of the southern panel" and the "reversed position of Orion" appears to be this: the southern panel shows the sky of Egypt as it was before the celestial sphere interchanged north and south, east and west. . . . The reversal of east and west, if combined with the reversal of north and south, would turn the constellations of the north into constellations of the south, and show them in reversed order, as in the chart of the southern sky on the ceiling of Senmut's tomb. The stars of the north would become stars of the south.[28]

This west-to-east motion of the stars that seems to be depicted in the Senemut astronomical ceiling is precisely what we would come to expect with a north-to-south Earth inversion (thereby allowing Orion to appear east of and lower in the sky than Sirius).

Almost everywhere we look at Giza, it seems, there is evidence pointing to the reality of these ancient pole shift events, just as the ancient Coptic-Egyptian Sūrīd legend implies. Given this evidence, it rather seems to this writer that science has been a little too hasty in its dismissal of the possibility of rapid pole shift or inversion events and should, perhaps, be much more circumspect in its consideration of the considerable evidence suggesting that such events do, in fact, occur at regular intervals and as some natural characteristic of our planet's geophysical

properties. It may well be that our Earth, far from being a dependable and steady gyroscope that cannot easily topple over (as most scientists believe), might, in fact, behave more like a tippe-top, which, with sufficient redistribution of mass within its core or on its surface, then becomes sufficiently unstable and susceptible to the Dzhanibekov effect. In short, it seems that Earth inversions do happen: we just have to figure out why, how, and when.

Let us now turn our attention to another aspect of the CopticEgyptian oral tradition of Sūrīd that is believed by Egyptologists (and by scientists in general) to be nothing more than a mythical tale—the Deluge. Is there any evidence to support that this supposed mythical event might really have occurred in remote antiquity, as Sūrīd's astronomer-priests had predicted?

4

The Deluge

It is one thing, of course, that the ancient Egyptians may have believed that a future deluge would destroy their civilization, but what evidence is there to show that such a devastating calamity ever actually occurred in Egypt? In one respect, this question would seem somewhat moot. That the ancient Egyptians believed this catastrophic deluge would happen is what actually matters here because it was this belief that seems to have been the motivation for them to construct their pyramid arks, their great recovery vaults. They could very well have constructed the monuments purely on this belief, only to discover, many centuries later, that no deluge ever came, that the predictions of King Sūrīd's astronomer-priests were wrong.

We know from our history books that many ancient civilizations and cultures possessed a catastrophic flood myth similar to that of the biblical Noah. The oldest of these catastrophic flood myths is the Sumerian *Epic of Gilgamesh*, although this flood story may have had its origins in an earlier version passed on to the Sumerians by the preceding Ubaid culture, which dominated Mesopotamia for almost three millennia from circa 6500 BCE.[*10] These regional flood events were extensively investigated and documented in 1929 by the Assyriologist Sir Leonard Woolley, who discovered several ancient alluvial flood deposits deep underground in the royal cemetery of the ancient city of Ur. There is also the Zoroastrian flood myth of Yima and Ahura Mazda, as well as the Akkadian deluge epic of Atrahasis, while the ancient Greeks possessed their own flood myths of Deucalion and Pyrrha and also Philemon and Baucis. It is often said by Egyptologists that the ancient Egyptians, unlike other contemporary cultures, did not possess a flood myth. There is much, however, to suggest otherwise.

In the Temple of Horus at Edfu, far to the south of Egypt, we find inscribed into the many pillars, walls, and pylons there, hieroglyphics that speak of a far, distant time when the Egyptian gods and sages lived on an island paradise far to the west. This island "home of the primeval ones" had succumbed to a great deluge and was destroyed in a single day and night of calamity. The survivors, so these Edfu building texts tell us, headed east and reconstituted their civilization along the banks of the Nile. This flood story is, of course, very reminiscent of Plato's famous account of the destruction of Atlantis.

Other evidence that a great deluge did engulf Egypt at some time in remote antiquity comes to us from the ancient Egyptian *Book of the Dead*, which tells us:

> Then Thoth, being the tongue of the Great God declares that, acting for the Lord Tem, he is going to make a Flood. He says: "I am going to blot out everything that I have made. This Earth shall enter into (be absorbed in) the watery abyss of Nu (or Nunu) by means of a raging flood, and will become even as it was in primeval times . . . one day the Nile will rise and cover all Egypt with water, and drown the

whole country; then, as in the beginning, there will be nothing to be seen except water."[1]

This flood event described by the god Thoth was clearly not a mere annual flooding of the Nile to which most Egyptologists attribute these mythical flood accounts. This was to be a flood that would "drown the whole country" whereby "there will be nothing to be seen except water." Such a flood, were it ever to have occurred, truly would have been a catastrophic, civilization-ending event.

PHYSICAL EVIDENCE OF AN EGYPTIAN FLOOD

Further sources from some medieval accounts inform us that such a catastrophic flood did indeed occur in Egypt and that evidence of its former presence, a tidal line, could apparently be observed on the sides of the Giza pyramids before they lost their casing stones during an earthquake in medieval times. In *The Chronology of Ancient Nations*, C. Edward Sachau writes, "People are of opinion, that the traces of the water of the Deluge, and the effects of the waves are still visible on these two pyramids half-way up, above which the water did not rise."[2]

According to one modern researcher, Sherif El Morsy, the effects of the waves of this deluge event can still be observed today on various monuments around Giza, particularly the southwest corner of the second pyramid, the mortuary temple of the third pyramid, and within the two giant boat pits to the east of the Great Pyramid. Morsy writes:

> I have found that the extensive erosion patterns at the lower elevations of the plateau are different to the erosion patterns found at higher elevations. These erosion patterns are due to the Necropolis's inundation by water. The inundation of water reaches a maximum of 75 meters over our current sea level creating a shoreline at the Khafra enclosure that spans all the way across to the Menkara temple. This shoreline is a 2 meter high intertidal range showing pitting and tidal notches due to seawater, wave mechanics, and tidal ebbing. At the lower levels such as at the Sphinx, the Sphinx temple, the first 20 courses of the Great pyramid including the boat pits; we see erosion due to deeper water saturation, where the stone blocks and wall linings have absorbed sea water. As the waters receded and a dry sunny windy climate took place, these megalithic stone blocks started weathering, creating tafoni erosions which are due to the salt chemically reacting and flaking the limestone with pitting formations. During a catastrophic sea surge and the forthcoming water regression, we clearly observe at certain areas such as corners, outlets, and trenches . . . horizontal indentures due to water force gushing and turbulence. On the top temple blocks we have sediment and alluvium deposits that have collected on the flat surfaces such as seen in shallow sea beds and lagoons, creating an oozing spongy effect due to the water regression that left these deposits. . . .
>
> To my surprise the bulge on the top surface of the block that nearly made me trip was a petrified exoskeleton of what seems to be an Echinoid (sea urchin), which is a shallow sea marine creature. The coincidence to discover a petrified shallow marine creature laying on a top surface of a temple block that sits right under the ancient intertidal range, is a blessing. This is probably the most absolute proof that the Giza Necropolis was inundated by a sea surge. The petrified Echinoid and the dilapidated temple block stand together creating for us such a solid picture of an ancient lagoon that once existed at the Menkara temple during a high sea that inundated the Necropolis. . . .
>
> Geologists and archeologists are debunking this discovery believing that this petrified marine creature has eroded out of the limestone block. I disagree due to these forthcoming points; first, this petrified marine creature's exoskeleton is in pristine condition with minute details of the shell perforation showing clearly, therefore it must have been existing from a much later date such as the Pleistocene or early Holocene periods. Second, this petrified creature is laying gravitational flat in its natural sitting position on the surface of this temple block. Third, it is living in its natural environment which is in the intertidal range in a shallow lagoon with sea bed sediments. Fourth, it is not a miniscule fragment like most shells that make the limestone formation, but a large entire specimen.[3]

In addition to Morsy's research, others have reported considerable silt sediments around the base of the Great Pyramid, as well as salt incrustations within its walls. The cultural anthropologist Martin Gray writes:

> Silt sediments rising to fourteen feet around the base of the pyramid contain many seashells and fossils that have been radiocarbon-dated to be nearly twelve thousand years old. These sediments could have been deposited in such great quantities only by major sea flooding, an event the dynastic Egyptians could never have recorded because they were not living in the area until eight thousand years after the flood. This evidence alone suggests that the three main Giza pyramids are at least twelve thousand years old. In support of this ancient flood scenario, mysterious legends and records tell of watermarks that were clearly visible on the limestone casing stones of the Great Pyramid before those stones were removed by the Arabs. These watermarks were halfway up the sides of the pyramid, or about 400 feet above the present level of the Nile River.
>
> Further, when the Great Pyramid was first opened, incrustations of salt an inch thick were found inside. While much of this salt is known to be natural exudation from the stones of the pyramid, chemical analysis has shown that some of the salt has a mineral content consistent with salt from the sea. These salt incrustations, found at a height corresponding to the water level marks left on the exterior, are further evidence that at some time in the distant past the pyramid was submerged halfway up its height.[4]

And the independent researcher into Earth science, John M. Jensen Jr. writes:

> There are 3 different salt lines. . . . That is, the water rose to its highest point about 254' up the side of the Great Pyramid, and remained at that level for some short period of time, because the salt line residue was relatively thin. Then, following that level stasis, the waters receded to the level of the Queen's Chamber, and remained there for a long enough period of time, so that the interior salt line grew much thicker. Then the water fell to the lagoon level of 14'–18' as demonstrated by the sediment around its base. Most of the area, as we will document later shows what appears to be a shallow lagoon in terms of stone pitting and turbulence.[5]

Of course, the impact of such a devastating deluge would not be confined solely to ancient Egypt but would, naturally, have been felt all over the world as an event so devastating that it would etch itself on the collective memory of mankind for countless generations to come. In their book *Cataclysm! Compelling Evidence of a Cosmic Catastrophe in 9500 B.C.*, D. S. Allan and J. B. Delair write, "The collective and unavoidable message of these and other innumerable details is that, at some stage, colossal masses of water played a very important (although not the only) role in effecting these changes. This again suggests that the many surviving accounts of a worldwide Deluge long ago may yet be found to rest on a substratum of now dimly-remembered fact."[6]

THE ANCIENT EGYPTIAN CREATION MYTH

But even from the very beginning, as we learn from the ancient Egyptian creation myth found in the world's oldest religious writings, the pyramid texts, a great inundation of water (the primordial ocean) and the primeval mound (the archetypal pyramid) were central elements to this oldest of world-creation stories. Though there were a number of slightly different versions of this myth circulating in different parts of the ancient country, all of them spoke of the world being created out of an endless, lifeless sea of water (Nu or Nun), which, receding slowly, eventually revealed the first mound of land (the pyramid-shaped Benben). From within this primeval mound, all things came forth, including the sun, the Earth, the stars, the moon, and all animals and plants—everything in creation. Egyptologists believe that this creation story came about when the ancient Egyptians observed the annual Nile flood creating small mounds of alluvium as the flood levels of the river rose up and receded again. These mud silts would then be used by the ancient Egyptians to plant their crops.

However, in their translations of the pyramid texts, Egyptologists can only ever circumscribe a general sense

of their meaning, and they will, unsurprisingly, miss subtle but potentially important nuances, clues to the true meaning of a particular hieroglyphic sign or piece of script. If we accept that the ancient Coptic-Egyptian oral tradition of an impending deluge has some basis in truth, then it may be that the Egyptian creation myth itself actually derives from this truly cataclysmic flood in a past, forgotten age, a deluge that totally overwhelmed the entire kingdom in the time of the Zep Tepi (the First Time of Creation). However, through its people having built their great pyramid arks, their recovery vaults, the kingdom was able to be born again as the pyramids, with their life-sustaining contents (seeds, tools, knowledge, and other vital items) gradually emerged again from the subsiding floodwaters. This is to say that the pyramids and the foretold deluge may themselves have been the true origins of the ancient Egyptian creation myth, bringing forth everything needed to restart the kingdom.

THE PYRAMID AS RECOVERY VAULT

Whenever Egyptologists come across the pyramid sign in hieroglyphics (fig. 4.1), they invariably simply interpret this sign as meaning "tomb." But the Egyptologists know from reading many other ancient Egyptian texts that the pyramid was much more than a mere final resting place for the deceased king. They understand from these ancient writings that the pyramid was also some kind of "cosmic engine" that would bring about the magical revivification of the king and, by extension, the kingdom. Its purpose, the Egyptologists believe, was to assist in defeating *isfet* (chaos) and preserving the cosmic order, which the ancient Egyptians called *ma'at.*

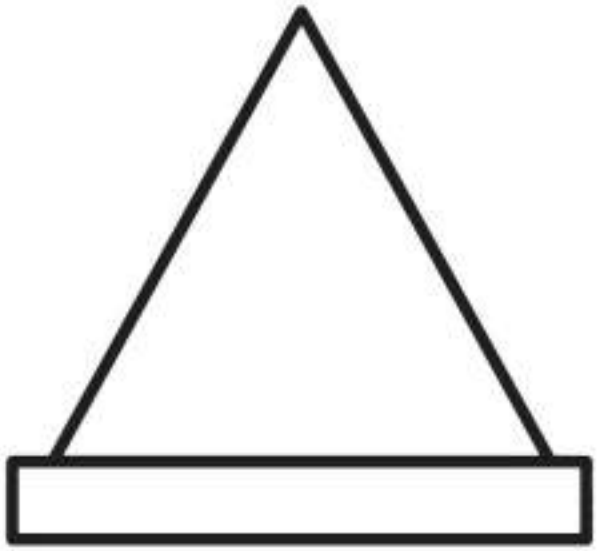

Figure 4.1. The hieroglyphic sign for "pyramid." Egyptologists interpret this sign as meaning "tomb."

It is, however, the contention of this work that the original function of the first pyramids was—as the Coptic-Egyptian oral tradition tells us—to bring about the revivification, the rebirth of the *kingdom* (not the king) after a devastating flood, and as such, Egyptologists have incorrectly labeled these structures as tombs when they should, in fact, be described more accurately as recovery vaults or simply as arks. Kings may well have appropriated and repurposed these pyramids as tombs in later dynasties, but this does not seem to have been their original function. All of which raises an interesting question: If the pyramids were conceived by the ancient Egyptians as recovery vaults or arks to help bring about the revivification of the kingdom, then it surely stands to reason that there would be a distinct hieroglyphic sign that symbolizes the pyramid as a recovery vault built to withstand the Deluge. But does such a hieroglyphic sign actually exist in the archaeological record?

There's a very good possibility that it does.

Given that the pyramid recovery vaults were about the recovery of the earth, the kingdom, after a devastating

deluge, they would, naturally, have been packed with many different seed types, agricultural tools, and many other important items.[*11] When we consider ancient Egyptian hieroglyphic signs for buildings that possess an agricultural function, such as an ancient Egyptian granary, we find that they are usually depicted with a "furrowed trench" sign (fig. 4.2) just below the building structure sign.

Figure 4.2. The hieroglyphic sign for "mud floor" (read: a furrowed trench), usually used to denote an agricultural context.

Figure 4.3. The "mud floor" ("furrow") sign can be observed in this agricultural scene. Gosse, Civilization of the Ancient Egyptians, 29.

This "furrow" sign can actually be observed in ancient Egyptian agricultural scenes (fig. 4.3).

In figure 4.4, what are believed to be the hieroglyphic signs for ancient Egyptian granaries can be observed. As we can see, all of these signs are presented with the furrow sign below it, indicating that the building structure above possesses an agricultural context or function. Also of note is that these traditional granary buildings all possess the distinctive barrel roof.

In the British Egyptologist Sir Alan Gardiner's standard classification of hieroglyphic signs for building structures (such as a granary), we find that each begins with the letter *O*, followed by a number. While the pyramid recovery vault has some functional similarities with the traditional Egyptian granary, it should not be equated with such and would likely have its very own hieroglyphic sign, one different from the traditional barrel-roofed granary structure—a pyramid structure set in an agricultural context (i.e., a pyramid resting on a furrowed base). And indeed, with a further search of Gardiner's hieroglyphic sign list, we find just such a hieroglyphic sign (fig. 4.5).

Figure 4.4. The hieroglyphic sign for a "granary" (and its variants). The alphanumeric labels below each hieroglyphic sign correspond to the standard classification of hieroglyphic signs by the British Egyptologist Sir Alan Gardiner.

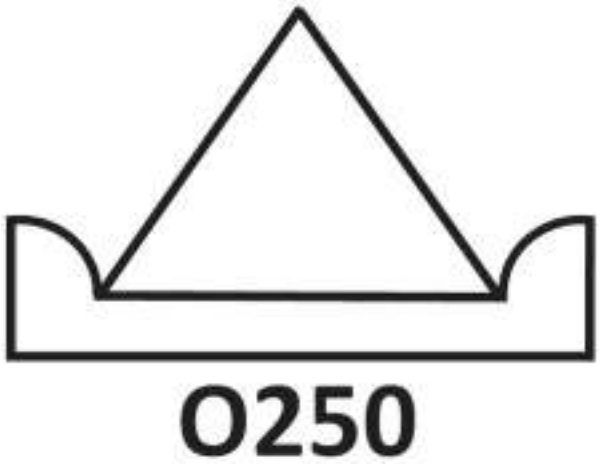

Figure 4.5. Gardiner's O250 hieroglyphic. As an O classification (building structure), this sign may be the hieroglyphic sign depicting the pyramid as a recovery vault, a pyramid structure having a function related to the earth and agriculture (for example, for the storage of seeds, etc.).

Critics, however, consider that this pyramid recovery vault sign merely depicts a mound of grain (on a mud floor). What goes against such an interpretation, however, is that scholars have clearly identified and classified this sign as an *O* sign (denoting a building or structure of some sort). Such a classification would not have been an arbitrary decision and would only have come about after extensive scholarly research showing this sign was indeed representative of a building or structure of some kind and *not* a mound of grain on a mud floor, as critics have suggested. In any case, the ancient Egyptians already have a quite separate and distinct sign to represent a mound of grain, which Gardiner has classified under *M* signs (plants and trees; fig. 4.6).

In short, scholars, having read many ancient Egyptian texts and having considered and understood the context in which the sign O250 has appeared within those texts, concluded that this sign should be classified as a building structure. And given that this pyramid building sign rests on the furrow sign, indicating an earth and agricultural connection, then it is entirely possible that this particular hieroglyphic sign represents the pyramid as a recovery vault to bring about the recovery of the Earth after a global cataclysm.

Figure 4.6. Gardiner's M35 hieroglyphic represents a mound of grain.

ISIS AND OSIRIS

The ancient Egyptian creation myth may also be connected to another of their myths from the pyramid texts (and other later texts): the myth of Isis and Osiris. While this myth is not actually regarded as a flood myth by Egyptologists, an argument can be made that this is precisely how this myth, this allegorical tale, should actually be understood. This is because the ancient Egyptian god Osiris is closely connected to the ancient Egyptian term *duat.* Egyptologists typically interpret the duat to be some otherworldly realm, the underworld that Osiris ruled in his role as god of the afterlife; it was also said to be the place where human souls would go for final judgment. But Egyptologists remain uncertain exactly how to describe the duat or even where it existed, somewhere between the heavens and the earth; the ancient Egyptian cosmogony does not make the duat easy to identify or understand. But the clues to a proper understanding of what the word *duat* actually means are right there in the ancient texts, albeit in allegorical form.

One of the key elements of the Osiris myth is that his body was placed into a coffin by his jealous brother, Seth, who then cast it into the Nile, whereupon Osiris drowned. Along with other ancient sources, the Shabaka Stone states, strangely, that Osiris "drowned in his own waters." Later in the story, the drowned body of Osiris is recovered by Isis, his wife and consort. Hearing of this, Seth then cuts the drowned body of Osiris into fourteen parts (some versions of the myth say sixteen parts) and has these body parts scattered across the kingdom.

One of the most important aspects of this story from the pyramid texts is that the ancient Egyptians perceived that the construction of the pyramids literally *was* the construction of the "body" of Osiris. These first pyramids consisted of eight large pyramids, six small Queens Pyramids at Giza, and two smaller satellite or "cult" pyramids also at Giza. (There were also three large incomplete pyramids at other locations along the Nile). And so, not counting the incomplete ones, we have a total of sixteen completed pyramids during this period. Given that Osiris is regarded in the pyramid texts as the literal pyramid, could it be that these first sixteen completed pyramids actually represent the allegorical sixteen body parts of Osiris that Seth "scattered" across the ancient land?[*12]

Even more intriguing is that when we plot the location of these first sixteen pyramids onto a map of Egypt, they present to us a stick figure outline of the classic, archetypal figure of Osiris (fig. 4.7).

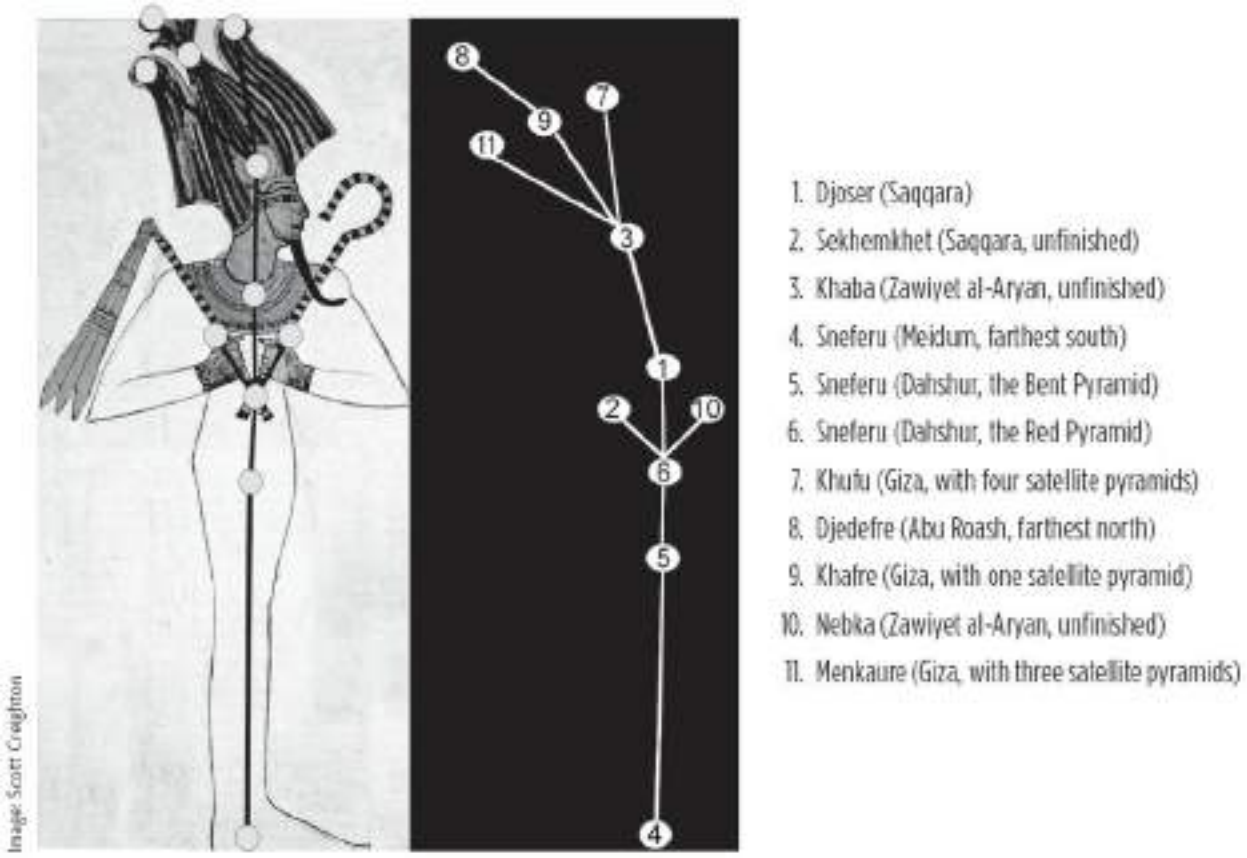
1. Djoser (Saqqara)
2. Sekhemkhet (Saqqara, unfinished)
3. Khaba (Zawiyet al-Aryan, unfinished)
4. Sneferu (Meidum, farthest south)
5. Sneferu (Dahshur, the Bent Pyramid)
6. Sneferu (Dahshur, the Red Pyramid)
7. Khufu (Giza, with four satellite pyramids)
8. Djedefre (Abu Roash, farthest north)
9. Khafre (Giza, with one satellite pyramid)
10. Nebka (Zawiyet al-Aryan, unfinished)
11. Menkaure (Giza, with three satellite pyramids)
Image: Scott Creighton

Figure 4.7. Drawing lines between the primary pyramids along the Nile creates a stick figure outline of the classic Osiris figurine. Note: this number includes the three incomplete pyramids and excludes the six small Giza satellite pyramids.

What this myth may then be alluding to is the pyramids (the body of Osiris) being drowned (flooded) by Seth (the ancient Egyptian god of chaos) and then slowly emerging again from the waters of the Deluge. Thus a connection is made with the ancient Egyptian creation myth. Just as we are told in the creation myth that the primeval mound brought forth everything in creation when the floodwaters of Nun subsided, so too did the pyramids (the body of Osiris) bring forth everything in creation when the floodwaters of the Deluge (the duat) subsided. In essence, then, these two myths may actually be different aspects of the same story, the same ancient flood event, with the creation myth evolving into the myth of Osiris over time and being passed on orally through the generations as an allegorical tale of the Deluge.[*13]

In summary then, in the ancient Egyptian creation myth everything came forth from the pyramid body of Osiris—the sun, the moon, the stars, the seas, the animals and plants and, yes, the life-giving Nile, too. It *all* came from the body of Osiris—the pyramid arks or recovery vaults. This may then explain why, in the Shabaka Stone, we read that Osiris drowned in his waters, because if everything in creation comes from (the pyramid body of) Osiris (including the Deluge), then he will have drowned in waters that he himself had brought forth into creation. Thus, his allegorical body, the sixteen pyramids scattered along the banks of the Nile, was drowned in the duat (the duat here being interpreted as the waters of the Deluge). In this regard, the independent researcher and author, the late Alan F. Alford, tells us of the duat, "The duat is a watery place. It is traversed by boat, and it contains a 'lake of the duat' (sh dati) . . . in addition, the word duat is twice determined in the Pyramid Texts by the hieroglyph of a lake. The duat is a dark place. In the Pyramid Texts, it is identified with ament, 'the hidden land.'"[7]

And here's the thing. Whenever we see the pyramid written in hieroglyphic form, it is almost always presented as a pyramid shape sitting on top of a rectangle shape (fig. 4.8). Egyptologists typically interpret the lower rectangle shape beneath the pyramid sign simply as a perimeter or enclosure wall around the base of the pyramid. But there's

another perfectly plausible (and more nuanced) explanation as to what we may really, in fact, be observing here.

The pyramid standing on top of the rectangle may not, in fact, be just one hieroglyphic sign but two signs! And, intriguingly, in ancient Egyptian hieroglyphics, the rectangle sign actually represents a pool or lake of water—the duat (fig. 4.9).

It is possible, then, that this composite hieroglyphic pyramid sign may, in fact, be depicting the pyramid surrounded by water, the floodwaters rising to submerge the pyramid (allegorically, the pyramid body of Osiris drowning). Or, of course, it could be depicting the pyramid body of Osiris *emerging* from the floodwaters, the duat. Further evidence that the pyramid's "perimeter wall" may, in fact, represent a body of water is presented to us in the actual perimeter wall of the South Pyramid at Saqqara, which is uniquely shaped like a wave or ripple of water (fig. 4.10), a feature not dissimilar to the ancient Egyptian hieroglyph for water (fig. 4.11).

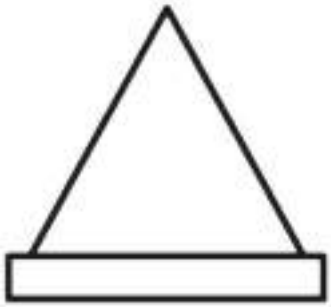

Figure 4.8. The hieroglyphic sign for "pyramid" (supposedly with an enclosure wall at its base).

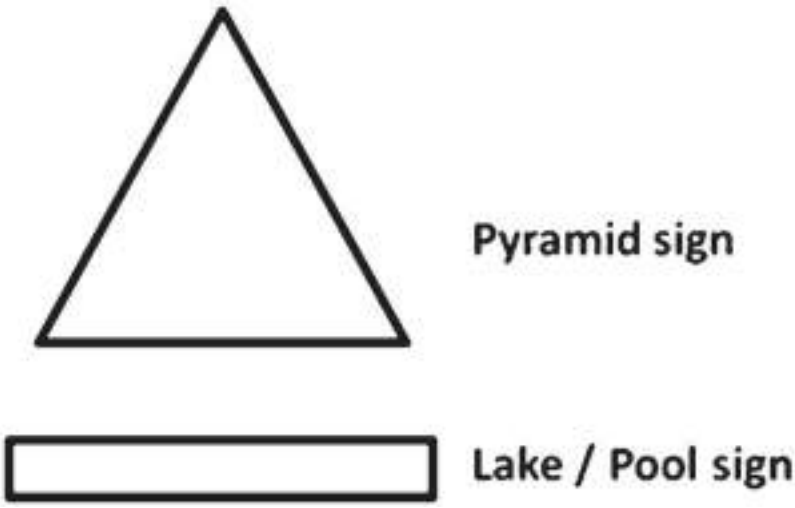

Figure 4.9. The hieroglyphic sign for "pyramid" may actually be a composite of two separate signs, one for "pyramid" and one for "pool" or " lake," depicting the pyramid emerging from the floodwaters of the Deluge (duat).

Figure 4.10. The wavy perimeter wall of the South Pyramid at Saqqara. (Image: Jean-Pierre Jéquier [1852–1946])

Figure 4.11. The ancient Egyptian hieroglyphic sign representing water.

Thus we have two signs depicting the pyramid recovery vault: one with the pyramid standing on earth and the other with it standing in a pool or lake of water (figs. 4.12 and 4.13).

Naturally, the former land where people once lived their daily lives would (as the Deluge overwhelmed it) end up entirely underwater, becoming “a dark place . . . the hidden land.” And as the waters of the Deluge/duat slowly subsided, the pyramid texts tell us further, “The duat gives birth to Osiris . . . he emerges from the duat.”

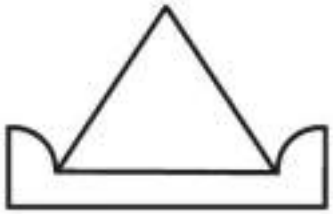

Figure 4.12. The pyramid recovery vault standing on earth (pre-Deluge).

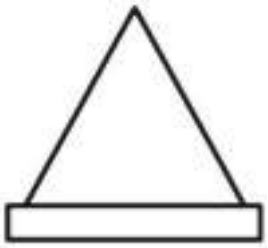

Figure 4.13. The pyramid recovery vault standing in water (post-Deluge).

Figure 4.14. The pyramid body of Osiris emerges from the duat (the Deluge).

Which, if we consider the watery duat as being the anticipated Deluge and the first sixteen pyramids as being the body of Osiris, then as the floodwaters receded, the sixteen pyramids (the body of Osiris) would gradually emerge from the floodwaters: the duat gives birth to Osiris—Osiris emerges from the duat.

The pyramid texts further tell us that the body of Osiris is located in a secret chamber in the uttermost depths of the duat (that part of the pyramid that yet remains underwater) and that Osiris is the *akhet* from which the god Re (or Ra) emerges (that part of the pyramid that sits above the floodwaters).

The ancient Egyptian word *akhet* has a number of meanings and associations. It is the name of the first season of the ancient Egyptian year, when mounds of fertile black silt, ready for the planting of crops, would gradually emerge from the Nile floodwaters. It is associated with the king (as Horus) and the gods Osiris and Re. It is also regarded as the "womb of Nut," the ancient Egyptian sky goddess.

Akhet is probably all of these things, but what seems clear is that today we are merely circumscribing its true meaning. It is also translated by Egyptologists to mean "horizon." Indeed, the name given to the Great Pyramid itself is Akhet-Khufu, which Egyptologists believe means the "Horizon of Khufu." The Great Pyramid should not be regarded as the horizon, per se, but like the eastern horizon where the sun is reborn each day, the pyramid seems to have been regarded by the ancients as a place where rebirth would also occur. And this is what Egyptologists have partly correct: that the function of the pyramid was to serve as an instrument of regeneration, of reawakening/revivification, of rebirth, the means by which the cosmic order, ma'at, could be reestablished. However, according to the Coptic-Egyptian oral tradition, originally this revivification or rebirth concerned itself with the kingdom, not with Khufu himself. However, as the theology of the later dynastic Egyptians evolved into the Osirian doctrine, this revivification (brought about through the agency of Osiris; i.e., the sixteen pyramids) would, over time, become a rite for the king himself after death.

As the waters of the deluge subsided, the topmost part of the pyramid would gradually emerge above the floodwaters while the main body of the pyramid remained below, the pyramid apexes appearing as small islands or mounds emerging from the floodwaters just as the mounds of black Nile silt would gradually emerge from the waters of the annual inundation, ready to receive the seeds of life, just as the pyramids held within them the seed of all life, of reawakening, of rebirth: beacons of light amidst a sea of chaos and darkness.

Finally, the pyramid texts tell us that the sun god, Re, is reborn in a mystical union with Osiris and that Re's passage each night is a journey through the duat (the flooded realm of the underworld/the land flooded by the deluge) to emerge from the akhet (that part of the pyramid body of Osiris that has emerged from the floodwaters to be reborn again). Hence, if we consider the first sixteen pyramids as being the symbolic body of Osiris, then each day we are presented with this mystical union between the regeneration god, Osiris (his pyramid body), and the sun god, Re, emerging from the akhet (fig. 4.15).

We have seen in chapter 3 that the claim within the CopticEgyptian oral tradition of the stars wandering from their normal course does have some good evidence to show that such an event does seem to have occurred (at least twice) in our remote past. Were the Earth's axis to have changed, then that event would have altered the climate, in different ways, all over the world. One of these changes might have been a rapid melting of the former polar ice caps into massive glacial lakes such as Lake Agassiz and Lake Missoula. Over time, as the ice dam gradually thinned and the volume of water being held back increased, the pressure on the thinning ice dams would have become overwhelming, resulting in a catastrophic collapse of the dams, whereby an unimaginable volume of water would have flooded the land and raised sea levels by several feet almost overnight, not to mention the catastrophic tsunamis that would undoubtedly have ravaged coastlines all over the world. This sudden and rapid shift of such a massive body of water from one point on the Earth's surface to another may even have caused sufficient instability in the Earth's rotational axis to induce the Dzhanibekov effect, as discussed in chapter 3.

Figure 4.15. The mystical union of (the pyramid body of) the regeneration god, Osiris, and the sun god, Re, emerging from the akhet (that part of Osiris that has emerged from the duat/Deluge).

And so, once again, a deeper analysis of the Coptic-Egyptian oral tradition suggests that the deluge that King Sūrīd's astronomer-priests had anticipated may well have some merit. The stars wandering from their regular course (a shift of the Earth's axis) would have been followed some centuries later by a devastating flood. As Plato recounted in his *Timeaus:*

> That story, as it is told, has the fashion of a legend, but the truth of it lies in the occurrence of a shifting of the bodies in the heavens which move round the earth, and a destruction of the things on the earth by fierce fire, which recurs at long intervals. At such times all they that dwell on the mountains and in high and dry places suffer destruction more than those who dwell near to rivers or the sea; and in our case the Nile, our Saviour in other ways, saves us also at such times from this calamity by rising high. And when, on the other hand, the Gods purge the earth with a flood of waters, all the herdsmen and shepherds that are in the mountains are saved, but those in the cities of your land are swept into the sea by the streams. . . . And if any event has occurred that is noble or great or in any way conspicuous, whether it be in your country or in ours or in some other place of which we know by report, all such events are recorded from of old and preserved here in our temples; whereas your people and the others are but newly equipped, every time, with letters and all such arts as civilized States require and when, after the usual interval of years, like a plague, the flood from heaven comes sweeping down afresh upon your people, it leaves none of you but the unlettered and uncultured, so that you become young as ever, with no knowledge of all that happened in old times in this land or in your own. Certainly the genealogies which you related just now, Solon, concerning the people of your country, are little better than children's tales; for, in the

first place, you remember but one deluge, though many had occurred previously.[8]

If we are to accept the Coptic-Egyptian oral tradition as a true account, then we must accept what it says, and it tells us that these great monuments were not conceived or built as the tomb of just one king but rather as the womb of the entire kingdom, that the ancient Egyptians built their recovery vaults believing that a deluge would occur and that this grand scheme was their best means of survival. Within these pyramids they would place everything that was essential to ensure this hoped-for rebirth of the kingdom could come about, and thus this cache would include, inter alia, all manner of seed types, books, tools, and so on.

But the most vital element of Sūrīd's great recovery device would be placed within a hidden, inaccessible chamber high up in the pyramid's superstructure—within the Big Void, I believe. Without this vital component, its "engine," Sūrīd's great recovery device could simply never work. And this engine remains within the Great Pyramid's Big Void to this very day, awaiting discovery (see chapter 6).

Notwithstanding that there is much to support the Coptic-Egyptian oral tradition, this does not seem to shake Egyptologists from their belief that these pyramids were each built as a tomb for a solitary king. In particular, it is their belief that the Great Pyramid was conceived and constructed as the tomb and recovery instrument for one Fourth Dynasty pharaoh, Suphis, also known as Khufu.

Let us now consider the key evidence that convinces Egyptologists that this monument was built not as a recovery vault for the kingdom, but rather as the personal tomb of just one king—Suphis/Khufu. This king may well have built the Great Pyramid, but does the extant evidence prove that Khufu built the monument as his personal tomb? As we shall now see, the available evidence clearly does no such thing.

5

Distorting the Picture

If you ask most Egyptologists why the giant pyramids of the Third and Fourth Dynasties of ancient Egypt were built, you will hear nothing of a grand recovery system for the kingdom (as the Coptic-Egyptian texts inform us). Instead, they will tell you that these first pyramids (and all the pyramids that came thereafter) were built as the eternal tomb and instrument of revivification for the ruling pharaoh of the time. When you ask for proof of this claim, that's when things become a little trickier. And that is because no mummified remains of any ancient Egyptian king have ever been found in situ within any pyramid.[*14] No burial equipment of any king has ever been found in these pyramids, either; no grave goods and no official inscriptions have been found bearing any king's name anywhere inside these particular monuments, not even within the so-called burial chamber or on the so-called sarcophagus. This situation is all the more remarkable given that mastaba tombs (including many burial chambers) from before, during, and after this period were often copiously decorated and also had inscriptions of the deceased's name and titles inscribed into their sarcophagi. But in the first pyramids, there is none of this. Only much later, at the end of the Fifth Dynasty with the pyramid of Unas, do we begin to see official inscriptions (the pyramid texts) being placed on the chamber walls of the pyramid.

Looking specifically now at the Great Pyramid, the Coptic-Egyptian priest Manetho (ca. 300 BCE) tells us that it was built by Suphis. However, as we learned earlier, the Coptic-Egyptian oral tradition informs us that it was King Sūrīd (an Arabic name) who built the Great Pyramid. Now, if the name Sūrīd is an Arabic corruption of Manetho's Suphis (as first suggested by Sándor Fodor), a name that the Italian scholar Ippolito Rosellini later identified as belonging to the cartouche of Khufu (whom Herodotus names Cheops), then it may very well be that this ancient Egyptian king Sūrīd did indeed build the Great Pyramid. But none of these proclamations from these historical sources can be considered as solid proof of Sūrīd/Suphis/Khufu's hand in constructing this monument. It is suggestive, certainly, but it is far from definitive.

NAMES OF THE PYRAMID BUILDER BY HISTORIAN				
Historian	**Herodotus**	**Manetho**	**al-Masudi**	**Rosellini**
Name of Builder	Cheops	Suphis	Sūrīd	Khufu

As matters presently stand, for the definitive proof of their belief that Khufu built the Great Pyramid as his eternal tomb, Egyptologists point to the only empirical evidence that they believe directly connects this king (and

only this king) to the monument. This consists of some crudely painted hieroglyphic marks[*15] bearing this king's various names that were supposedly discovered within a series of four sealed compartments of the Great Pyramid. As mentioned at the beginning of this book, the presence of these hidden compartments was detected in 1837 by the British antiquarian and pyramid explorer Colonel Richard William Howard Vyse (fig. 5.1) who blasted his way into them with gunpowder. The claimed discovery of this king's various names within these chambers by Vyse was highly significant because this was the very same ancient Egyptian king that Herodotus tells us in his *Histories* was the builder of the Great Pyramid.

Figure 5.1. Colonel Richard William Howard Vyse.

And so, with the various ancient Egyptian names of this king[*16] having been found on the wall and roof blocks of these hidden chambers deep within the Great Pyramid, Egyptologists insisted that they now had irrefutable proof that the structure had been built by Khufu and for Khufu as the eternal resting place of this king and only this king. And since Khufu is believed to have ruled Egypt in the early Fourth Dynasty, which Egyptologists have fixed at around 4,500 years ago, this then became the de facto age for the pyramid itself. With this evidence, it seemed like the pyramid-as-tomb (of Khufu) theory had, finally, been proven.

Or had it?

EGYPTOLOGY'S HOLY GRAIL

Similar painted marks, including royal cartouches bearing the names of various ancient kings, are evident elsewhere at Giza: on some of the exterior stones of the Great Pyramid itself, on some of the stone blocks that, until relatively recently, sealed the southern boat pits, on the walls of the boat pits themselves, on some stone blocks around Menkaure's mortuary temple, and in a number of the mastaba tombs on the Giza plateau. However, with all of these particular inscriptions being *external* to the Great Pyramid, that means it is entirely possible that these painted marks could have been placed in these other locations at any time after the Great Pyramid's original construction, perhaps during repair works to the pyramid by the Fourth Dynasty (and later) pharaohs, repairs to a monument that was perhaps already ancient even in their time. It is merely an assumption by Egyptologists that the boat pits around the

Great Pyramid were sealed with their blocking stones in the Fourth Dynasty, but this could very well have occurred much later.

We know, with a fair degree of certainty, that the Sphinx was repaired by at least two later Egyptian dynasties, so it is not unreasonable to suppose that if the Giza pyramids (and other structures such as the boat pits) were contemporaneous with the Sphinx, then these may also have been part of an ancient reparation program, with the names of the various work gangs (e.g., the Followers of Khufu) from these later periods being the only evidence that now remains of various reparation works from later times. This is to say that the various monuments around Giza may well present us with authentic painted marks on the stonework of these monuments from a number of different periods of Egyptian history. How, then, do we know which painted marks are original and contemporary with the structures and which may have been added to the stonework hundreds (or even thousands) of years later during any reparation work?

This is precisely why the marks within the four sealed Vyse Chambers of the Great Pyramid are so important to Egyptology. Being located within areas that were entirely sealed and inaccessible from the time of the original construction, it follows that the painted marks therein must be contemporaneous with the monument's construction; they could not have been added at any time after these small compartments were first sealed because to do so would have meant having to tunnel one's way into these inaccessible chambers, and there was simply no sign of any such activity ever having occurred before Vyse arrived on the scene. And so, what these particular painted marks in these (hitherto) sealed compartments tell us would, naturally, be crucial to our understanding of this monument—assuming the marks are genuine.

The first of these small, hidden compartments was actually discovered in 1765, not by Vyse but by the British consul to Algiers, Nathaniel Davison. He gained entry to this chamber via a precarious climb using a rickety, improvised ladder at the southern end of the pyramid's Grand Gallery. It seems that the tight passage leading into this previously unknown chamber had actually been accessible since the pyramid's construction. Davison became aware of the presence of this passage only by chance when he noticed some bats flying in and out of it, some twenty-eight feet or so above the floor at the top end of the Grand Gallery.

The compartment Davison discovered was very cramped, being only a few feet in height but of similar length and breadth to the King's Chamber. As Davison explored this area on his hands and knees, he found nothing but a floor covered in bat dung; there was no hidden sarcophagus, no treasure, and just like the rest of the pyramid at that time, there was not a single inscription to be found anywhere. Little did Davison know then, but directly above the chamber that now bears his name, a further four hidden chambers awaited discovery.

THE VYSE CHAMBERS

Seventy-two years after Davison made his discovery, Vyse, following on the intuition of his colleague and business partner at the time, Giovanni Caviglia, blasted his way with gunpowder into four sealed compartments above Davison's Chamber, deep within the pyramid (fig. 5.2). These four Vyse Chambers were approximately the same dimensions as the one discovered by Davison. However, in one very important way, the four Vyse Chambers were quite different, for unlike Davison's Chamber and the pyramid's other main chambers (and passageways), the walls in these chambers were said by Vyse to have been covered with crudely drawn inscriptions in red ochre paint and, significantly, presented the name of the Great Pyramid's supposed builder, Khufu (Sūrīd/Suphis).

As mentioned, the importance of these painted marks to Egyptology simply cannot be overstated, for they represent the only empirical evidence that directly connects this Fourth Dynasty pharaoh to the Great Pyramid. Vyse's discovery has essentially become Egyptology's holy grail of evidence supporting the entire pyramid-as-tomb-of-Khufu narrative.

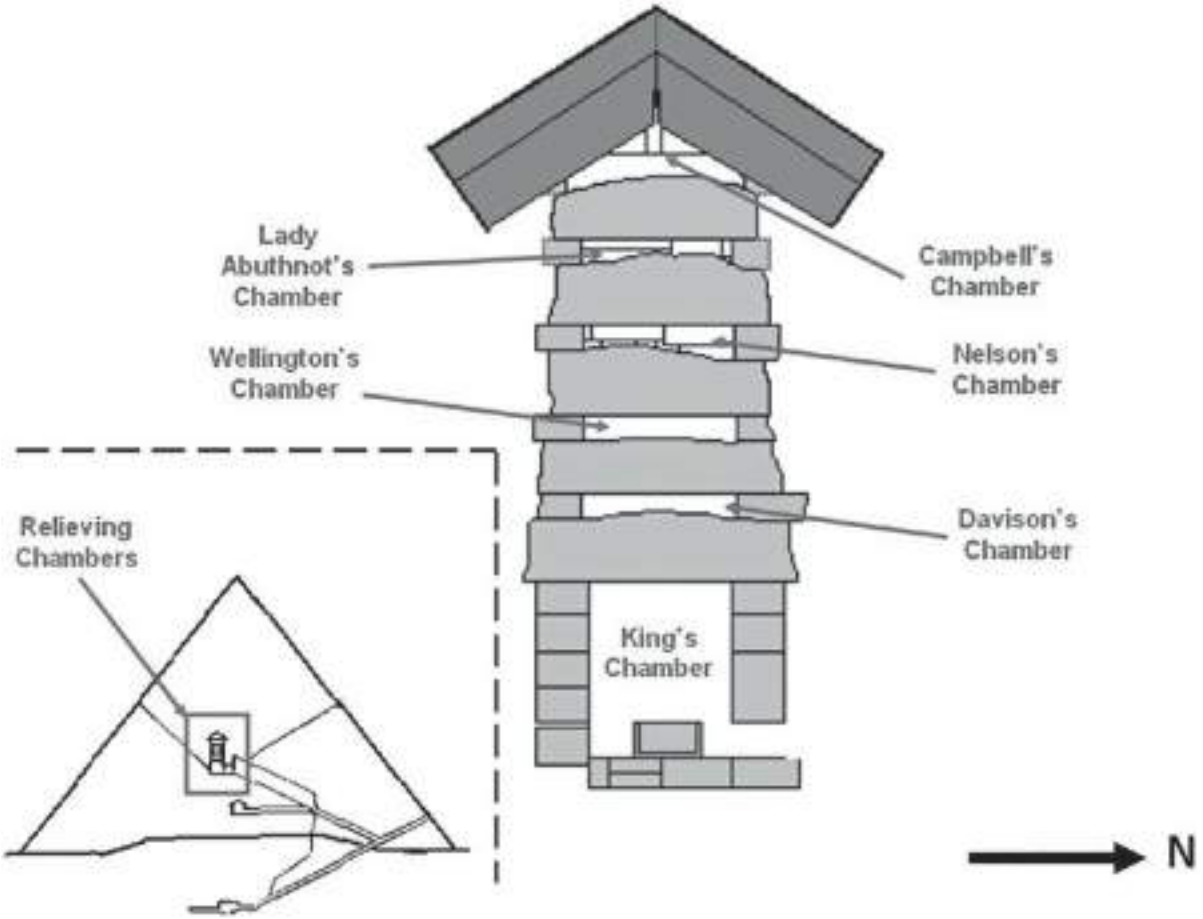

Figure 5.2. Davison's Chamber and the four Vyse Chambers above the King's Chamber.

Prior to the discovery of these painted inscriptions, the only evidence of Khufu building the pyramid as his tomb that Egyptology could claim was through the writings of Herodotus (writing some two thousand years after the pyramid's supposed construction). But even here, Herodotus does not explicitly state that the pyramid was constructed as Khufu's tomb, only that he was buried on a small island surrounded by water in vaults somewhere beneath the pyramid, a location that has never been found. Egyptologists, however, take the words of Herodotus simply to mean that Khufu was buried in the body of the pyramid rather than in a vault surrounded by water beneath it, as the ancient historian clearly states.[*17]

But almost from the moment Vyse first presented the painted marks from the four Vyse Chambers to the world, serious questions have surrounded them and, in time, suspicions have grown—particularly that the various names of the king may have been fraudulently placed into these four compartments by two of Vyse's most reliable and dependable assistants, Henry Raven and John Richard Hill (upon Vyse's instructions), and that the colonel perpetrated this great hoax, if not for fortune, then most likely for the prestige, notoriety, and international acclaim that such a major discovery would inevitably have brought. Vyse, by his own account, was a man entirely driven by the desire to make an important, historical discovery, and he expended a sizeable chunk of his own personal fortune (around $1.3 million in today's terms) in pursuit of that very goal. For evidence of Vyse's forgery, turn to the appendices.

BLURRING THE PAST

If we accept that Sūrīd was the likely builder of the pyramid (as the Coptic-Egyptian oral tradition asserts) and we accept that Sūrīd is Suphis and that Suphis is Khufu, ergo, that Khufu built the monument, then do any of Vyse's alleged fraudulent interventions at Giza (to corroborate the monument as belonging to this ancient king) actually matter? Undoubtedly, some will take the view that, ultimately, any nefarious actions by Vyse are irrelevant and that the possibility of these painted marks being the product of fraudulent activity is but a moot point.

Accepting such a view, however, is to entirely miss the insidious and corrupting effect Vyse's alleged actions likely had on the wider study of our ancient history. We simply will never know what unintended consequences may have come about as a result of any fraudulent activity the colonel may have perpetrated within the Great Pyramid. But there are a number of other reasons why Vyse's actions in those chambers in 1837 demand a thorough investigation, and any fraudulent activity therein should be fully exposed.

First of all—and it should really go without saying—frauds and fraudsters should always be investigated and exposed at any level in our society whenever and wherever they are suspected, especially in matters pertaining to our historical and cultural past. That's just good practice. The presence of false evidence serves only to undermine, corrupt, and distort the truth, preventing us from ever seeing the true picture of our past. We do not want our historical understanding to be built on or colored by highly dubious or downright false evidence.

Second, fake evidence proves nothing but can distort much. The fact is, the presence of this highly questionable evidence presented to the world by Vyse effectively permitted Egyptologists to consider that the matter of the Great Pyramid's provenance and purpose had been proven and that any further discussion of the matter was now seen as being without merit and unnecessary. They simply looked no further, dug no deeper because—with Vyse's evidence—the question of the pyramid's builder and its purpose, in their minds, had now been settled beyond question. His actions effectively shaped the thinking of orthodox Egyptology that the Great Pyramid was the tomb and recovery instrument of Khufu and *only* of Khufu. In finding the various names of Khufu (and only this king) in these chambers (there were no other king's or queen's names found), Vyse's "discovery" effectively served to shape and solidify the tomb-of-Khufu narrative and deflected Egyptology from considering other possible purposes for this monument. Like obdurate Clovis-first archaeologists, Egyptologists had the answer they wanted and agreed among themselves that there was no need for further investigation.

The truth, however, is that being dependent on evidence that may very well turn out to have been faked is never a good approach to historical research and is certainly not a scientific one. If anything, Egyptology should have been deeply reticent in accepting the authenticity of these painted marks, the veracity of which rested almost entirely on the reputation and word of one man, Colonel Vyse. Such was the pitiful level of scientific rigor in early Victorian Britain.[*18]

Now let us imagine, for a moment, that forty or fifty different king's and queen's names had been found in these four Vyse Chambers: Would Egyptology, in such a circumstance, have automatically presumed that this pyramid was merely the tomb of Khufu? Probably not. More than likely, such a discovery would have given them some serious pause for thought. And, equally, what if no king's name had ever been found in any of these four compartments? Given the oral tradition passed down to us from the Coptic-Egyptians, it is quite conceivable in such a circumstance that the tomb-of-Khufu narrative might never have taken root or, at least, might never have become so entrenched, and that an entirely different purpose for these monuments might have arisen as the prevailing view instead.

This is the effect the alleged discovery of these various names of this king presented from these chambers by Vyse has had on Egyptology: it effectively blindsided and stymied its thinking, causing Egyptology to leap to the tomb-of-Khufu conclusion, resulting in the immovable tomb paradigm we find ourselves saddled with today. And the great irony of this, of course, is that Egyptology came to this tomb-of-Khufu conclusion when there already existed another purpose for these structures that the ancients *themselves* spoke of but that Egyptologists simply chose to ignore and dismiss as mere myth and legend. They didn't look any deeper into the superficial painted marks in these chambers. They didn't think they had to. They had their man! That is the legacy of Vyse's potentially fraudulent actions and why we need the chance to reconsider the truth of these monuments. Resetting our minds and relegating the tomb-of-Khufu narrative to the bin where it almost certainly belongs is to get to the real reason why Sūrīd/Suphis/Khufu built the Great Pyramid.

PATTERNS IN CHAOS

When Vyse commenced his operations at Giza in November 1836, the scene that greeted him would have been one of chaos. The base of the Great Pyramid up to its entrance was entirely inaccessible, with a fifty-foot mound of debris—stones and sand—blocking access to the monument. As Vyse worked to have this debris gradually removed, it is conjectured here that, in so doing, he would have stumbled across some limestone blocks recovered from this debris, stone blocks that had painted hieratic signs on them—the names of various ancient quarry gangs with their associated king's names (along with some other sundry markings).

We know from Vyse's writings that he had seen such quarry marks elsewhere outside the pyramid, so any potential discovery of painted marks on any stones among the debris there, while they would likely have been of some interest to academia, could not have conclusively proven the pyramid's association to Khufu. Being found outside the pyramid means that these painted marks could have been painted onto these external stones at any time, perhaps by repair gangs long after the pyramid had been completed.

And so, it may have been while observing the painted marks on these external stones that Vyse had a devilish thought: What if painted marks just like those he was finding on some of the stones outside the pyramid were found within the sealed chambers he was blasting his way into? Such would surely be considered an enormously important discovery since, being found within chambers that had been sealed since the pyramid's construction, then such marks have to be considered contemporaneous with the construction and, as such, would finally corroborate the claim by Herodotus that the Fourth Dynasty king, Suphis/Khufu, had indeed built the Great Pyramid.

With the discovery of these painted marks on the stones in the debris *outside* the pyramid, Vyse could have claimed for himself an academically interesting though somewhat inconclusive discovery, or he could use the painted marks on these external stones in a totally different way in order to claim for himself a highly significant discovery and thus secure for himself a place in the world's history books. And so, given Vyse's near desperation to make an important discovery during his time at Giza, the fame and notoriety of proving Khufu's association with the Great Pyramid may well have been too alluring for the colonel to resist: the painted marks he (hypothetically) discovered outside the pyramid would now be used to much greater effect *within* the monument. In discovering the various names of Suphis/Khufu painted within (hitherto) sealed chambers of the Great Pyramid, a provenance that was, indisputably, contemporaneous with the pyramid's construction, then the colonel would give to Egyptology the holy grail of evidence.

INADMISSIBLE EVIDENCE

As shown in my previous works and in the appendices of this book, considerable doubt can be cast on the veracity of Vyse's claimed discovery of the painted quarry marks within the Great Pyramid at Giza. What we must now do is place his discovery aside, treat it as inadmissible, and take our minds back to a time before it ever existed. Had this evidence never been presented by Vyse, would Egyptologists have been so certain that the Great Pyramid had been built as the tomb of Khufu? Would they have perhaps given more consideration to the Coptic-Egyptian oral tradition that speaks of an entirely different purpose for these monuments?

All that remains for us to do now is to continue our investigation into this ancient monument to see if there is anything within it that might prove the Coptic-Egyptian oral tradition that these pyramids were, in fact, built not as the tomb for an individual king to reach his afterlife but rather as a recovery system for the entire kingdom to be reborn again after an anticipated natural disaster.

This book predicts that the evidence for such a system will be found within the Big Void, for this mysterious, newly discovered space within this monument was the beating heart of the entire recovery system, the engine that, without which, the hoped-for rebirth of the kingdom would have utterly failed. But this engine within the Big Void is not what we might think.

Let us now discover and consider this mysterious new pyramid chamber and the remarkable secret it almost certainly holds within.

6

Into the Void

This book began by presenting the discovery of the Big Void—a potentially massive new chamber within the Great Pyramid—and went on to show how there exists some good evidence to indicate that the Coptic-Egyptian oral tradition that speaks of the purpose of the Great Pyramid as some kind of ark may actually be based more in fact than the myth believed by Egyptology. This Big Void (fig. 6.1) is believed to be almost as big as the Grand Gallery (157 × 28 feet), though at present, scientists remain uncertain as to whether or not the space is horizontal or inclined like the Grand Gallery.

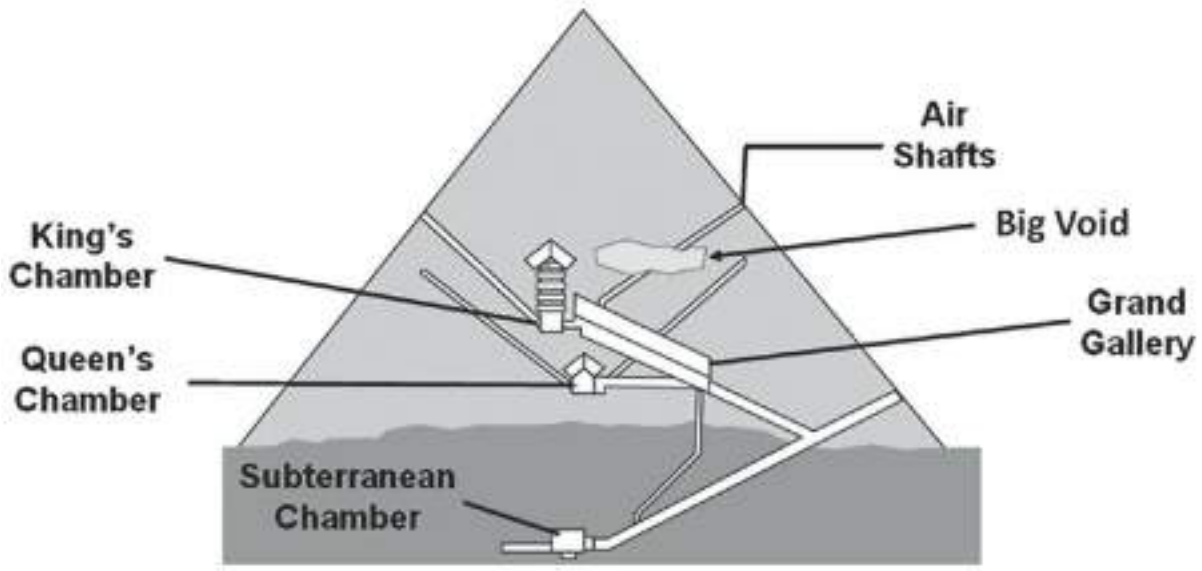

Figure 6.1. The Chambers of the Great Pyramid, showing the Big Void. (Image: Scott Creighton)

Mainstream Egyptologists are scratching their heads as to why such a massive space should exist within the Great Pyramid at all. While Egyptologists such as Mark Lehner and Zahi Hawass of the ScanPyramids project team

advise caution in declaring this space a new chamber, it seems perfectly clear from the data that this massive void is not like many of the much smaller sandand mortar-filled voids that the Great Pyramid is peppered with. Indeed, this void appears to be something altogether different, and it is highly likely that after further investigation, it will be found to be the fifth major chamber within the Great Pyramid.

One of the reasons why Egyptologists are hesitant to pronounce this void as a new pyramid chamber is that there is no obvious entry to it. No passageways or connecting tunnels have been detected. If it is indeed a purposely built chamber, then it appears to be entirely isolated and apparently without any obvious means of access. Why would Sūrīd/Khufu build his pyramid with a totally inaccessible chamber inside it?

Some have speculated that Khufu may have built this chamber to store his treasure to perhaps take with him to the afterlife.[1] This scenario seems highly unlikely because, in accordance with ancient Egyptian burial rituals, grave goods would be deposited inside the pyramid only after the king's death, by which time this chamber would have been long completed and sealed.[2] How, then, would it have been possible to place Khufu's afterlife goods into a chamber to which there was no access, a chamber that was entirely sealed off as the Pyramid was built upward and over it?

The tomb paradigm, quite simply, cannot adequately explain this anomaly, especially if this void is found to be a purposely built, inaccessible chamber. But while everyone is focused on the Big Void and the modern science that went into discovering it, unsurprisingly, no one is considering what the ancient Egyptians themselves have said with regard to the building of the pyramids and wondering if there is any clue in their ancient texts to shed light on this important discovery.

Vyse quotes what the Coptic-Egyptian texts tell us. This was noted in chapter 2, but now the next important bit of information is given.

> The king then directed the astrologers to ascertain by taking the altitude whether the stars foretold any great catastrophe, and the result announced an approaching deluge. The king ordered them to inquire whether or not this calamity would befall Egypt; and they answered, yes, the flood will overwhelm the land, and destroy a large portion of it for some years. . . . Upon which the king ordered the Pyramids to be built, and the predictions of the priests to be Inscribed upon columns, and upon the large stones belonging to them; and he placed within them his treasures, and all his valuable property, *together with the bodies of his ancestors.* (italics added)[3]

And there's the clue: this text suggests that the Big Void within the Great Pyramid is a chamber built specifically to house and protect "the bodies of his [Sūrīd's] ancestors."

What must be appreciated here is that the ancient Egyptians believed their deceased kings and queens continued to perform a vital role for the living kingdom. In the afterlife, their role was to intercede with the gods in the heavenly realm to assist the living king to ensure the sun would rise, the Nile would flow, and the crops would grow. Indeed, part of the reason why it was essential that the bodies of these kings and queens were preserved and mummified was to protect them against decay, because a decayed body could not fulfill this vital function in the afterlife. It was also the job of the living king to protect the tombs of these long-deceased kings and queens from robbery or desecration and to give prayers and offerings to help nurture them. Indeed, failing to do this could bring dire consequences for the living king and the kingdom. Researcher and author Alan F. Alford explains:

> The servicing of the ancestors' tombs by the king generated a virtuous circle of creative energy. By rejuvenating the bodies of the ancestors, the king enables their spirits to make the circuit of the cosmos. . . . He was then able to draw on this power to service the tombs of the ancestors By supporting each other, across the threshold of death, the [living] Horus-king and the [deceased] Osiris-kings ensured that the repetitions of creation—of the death and rebirth of the world—could be performed in perpetuity."[4]

And so, as a consequence of their religious beliefs, the ancient Egyptians had great reverence for their ancestor kings and queens and would go to quite extraordinary lengths to protect their long-expired bodies, often removing

their mummified remains from their original tombs to new, safer tomb locations when it seemed their original tombs were in danger of some kind (usually from tomb raiders). An example of this practice comes to us from the famous tomb DB320 (now referenced as TT320), located in the Theban cliffs of Deir el-Bahri.

When discovered in 1871 (by a tomb robber by the name of Ahmed Abd el-Rassul), the tomb was found to contain the mummified remains of no less than fifty ancient Egyptian kings, queens, and other members of the royal court, placed there at some time during the Twenty-First Dynasty (1069–945 BCE). Included among the kings discovered were the mummies of Amosis, Ramesses I–III, Ramesses IX, Seti I, Tuthmosis I–III, Amenhotep I, and his mother, Queen Ahmose Nefertari. Over the next ten years, the el-Rassul family pillaged this royal cache, selling countless numbers of precious ancient artifacts on the illegal antiquities market. Eventually, the Egyptian authorities became suspicious and soon caught up with the el-Rassul family business.

Émile Brugsch, assistant to the great French Egyptologist Gaston Maspero, described the scene when he became the first person outside the el-Rassul family to enter this tomb.

> Soon we came upon cases of porcelain funerary offerings, metal and alabaster vessels, draperies and trinkets, until, reaching the turn in the passage, a cluster of mummy cases came into view in such numbers as to stagger me.
>
> Collecting my senses, I made the best examination of them I could by the light of my torch and at once saw that they contained the mummies of royal personages of both sexes; and yet that was not all. Plunging on ahead of my guide, I came to the [end] chamber . . ., and there standing against the walls or here lying on the floor, I found even a greater number of mummy-cases of stupendous size and weight.
>
> Their gold coverings and their polished surfaces so plainly reflected my own excited visage that it seemed like I was looking into the faces of my own ancestors."[5]

That all of these kings and queens were discovered together in a single tomb was apparently the result of a collapse of the Egyptian state, a collapse that led to a decrease in the protection of sacred sites and a consequential increase in tomb robbery. To protect the kings and queens (and by extension, the kingdom itself) from this danger, the Egyptian priests gathered together the mummified remains from their various original tombs and removed them to what they believed would be a much safer burial location.[6]

But this practice raises an intriguing question: What, then, would you do if you believed your entire civilization was soon to be comprehensively obliterated by a cataclysmic deluge, the waters of which would surge over the entire Earth, washing away all traces of your ancestors and thereby ending forever their ability to maintain the kingdom?

You would build a monumental recovery device consisting of immovable stone mountains that would contain everything required to bring about the recovery or rebirth of the kingdom after the deluge had abated. Yes—seeds, tools, knowledge, and other useful items would be important to place within your recovery device. However, the single most important thing your pyramid recovery device absolutely *must* contain would be the means by which to make the desired recovery actually happen through the agency of the deceased Osiris-kings, the gods.

Were the bodies of the ancestor kings and queens to be destroyed in the coming deluge, then there could be no Osiris-kings to commune with the gods and, therefore, no recovery could ever come about. None. It would be like building a hospital without any medical staff or a car without an engine. These ancestor kings and queens were the key, the *engine*, *the* power that, without which, no recovery could ever even be hoped for. And so the deceased Osiris-kings—Sūrīd's ancestors—had to be protected from the coming deluge, and this was achieved by relocating them from their original (less protected) tombs and placing them within a great Hall of the Ancestors (that is, the Big Void); a massive, inaccessible chamber built high up in the pyramid recovery device.

In short, the ancient Egyptians' gathering together the mummified bodies of all their ancestor kings and queens from around the country and reburying them in a single massive chamber in the heart of the Great Pyramid was their way of protecting and preserving their ancestors for all time, specifically, from the chaos and destruction, *isfet*, in the foretold deluge and thereby ensuring that the cosmic order, *ma'at*, could be maintained. This reburial was the means of ensuring the preservation and continuation of the eternal union between the Horus and Osirian kings, to bring about the rebirth of the kingdom after its anticipated demise.

It is likely that future, more detailed scans of the Big Void will reveal that there are no access tunnels anywhere leading to this chamber since the bodies of the ancestor kings and queens of Sūrīd would likely have been lowered into this great Hall of the Ancestors when the roof of this chamber was still open, providing the *only* access to this space. Once all the ancestor kings and queens had been interred therein, the Great Hall would have been completely sealed over as the pyramid was built upward to its completion.

WHY A PYRAMID?

For a number of reasons, the giant pyramids of the early Old Kingdom period were far from the ideal places to bury the ancient Egyptian kings and queens, so choosing such massively visible structures to inter their bodies could only have been made after careful consideration and weighing the pros and cons.[*19] Indeed, it seems that there may have been a benefit of using the pyramid form for this purpose that outweighed all of the potential drawbacks.

A 2018 headline in the British newspaper the *Independent* read, "Great Pyramid of Giza May Be Able to Focus Electromagnetic Energy through Its Hidden Chambers, Physicists Reveal," and the article itself stated, "The Great Pyramid of Giza may be able to focus electromagnetic radiation into pockets of energy inside its network of internal chambers and underneath its base, a new study has suggested."[7]

Various scientific studies have shown that exposure to electromagnetic fields can reduce or slow the decay rates of bacteria and inhibit bacteria spore formation. The bodies of the ancestor kings and queens had to be preserved at all costs as they were the vital element—the engine—of the entire recovery system. It was absolutely essential to prevent the bodies from decaying or, at least, to much reduce the effects of decay. Embalming the body was one method the ancient Egyptians used, but by then placing the bodies within a structure that itself possessed properties that could further inhibit decay would obviously have been desirable. But what proof is there that the pyramid shape can inhibit the decay of organic matter? Consider the results of the following study:

> Six milk samples in glass beakers of 100 ml volume were kept under the test pyramids and one of the samples was kept in open as control. These milk samples were assessed for 2 weeks. The pyramids were kept in a single room and placed 1.5m away from one another. . . . The milk specimen placed outside as a control started to deteriorate after 24 hours; while samples placed within the pyramids (test samples) showed delay in deterioration Among wooden pyramids, the octal form was better than the square and small-square pyramids.[8]

Interestingly, in this study it was found that an eight-sided pyramid performed best in reducing deterioration in the milk samples. Perhaps this may explain why the Great Pyramid itself is also an eight-sided structure.

If the true function of the Great Pyramid's Big Void is indeed to be a safe haven for Sūrīd's ancestors, it would then be important to further reduce their mummified bodies to the effects of organic decay (and, of course, from the total destruction of the coming deluge). But how many ancestor kings and queens might we expect to find within it?

While we cannot currently know this with any degree of certainty, there may, in fact, be a big clue to this number hidden in plain sight within the known chambers of the Great Pyramid, specifically the twenty-seven pairs of enigmatic notches or holes cut into the two pavements of the Grand Gallery. In *Pyramid Quest: Secrets of the Great Pyramid and the Dawn of Civilization*, Robert Schoch and Robert McNally note "a series of 27 holes . . . occurring in pairs on either side, and alternating between longer ones of about 23.3 inches and shorter ones of about 20.5 inches. They are about 6¼ inches wide and cut to varying depths, usually 8 to 11 inches. In the walls above these holes are vertically arranged inset stones, each about 18 inches high and 13 inches wide, with a groove cut across each."[9]

In his book *The Mysteries of the Great Pyramids* (1978), the physicist and Egyptology enthusiast André Pochan proposed that these trapezoidal pavement notches and inset holes of the Grand Gallery (fig. 6.2a) were slots into which great statues of Khufu's ancestors were to be inserted (fig. 6.2b)—the larger notches for the larger king statues and the smaller notches for the smaller queen statues. These statues would alternate, king and queen, king and queen on both sides of the gallery, with each king and his queen facing each other.

In support of his hypothesis, Pochan writes:

That the Grand Gallery is simply the gallery of the ancestors is corroborated by two ancient Arab authors. Muhamed ibn Ishaq Ibn al-Nadim, quoted by Ahmad ibn Ali al-Maqrizi, writes . . . "A passage pierces this pavement . . . ; the arch is made of stone and one sees there portraits and statues standing or resting and a quantity of other things, the meaning of which we do not understand." And Ibrahim Wassif Shah writes: . . . "In the eastern pyramid [Great Pyramid], chambers had been built in which the stars and heavens were depicted, and in which was amassed what Sūrīd's forebears had accomplished in the way of statues."

(Undoubtedly, the manuscript's text has been misreported; it should read "in which were amassed the statues that were done of Sūrīd's forebears.")[10]

Figure 6.2a. The trapezoidal notches in the left pavement of the Grand Gallery. The inset holes above each pavement notch have been filled with modern cement. (Image: Scott Creighton)

Figure 6.2b. The Gallery of Ancestors. (Artist impression based on photo by Keith Adler)

But if the Coptic-Egyptian tradition is right and Sūrīd did gather up and place the actual bodies of his ancestors within an inaccessible chamber high up in the Great Pyramid, why then would the king also have placed statues of his ancestors in the Grand Gallery, as Pochan describes? Why did Sūrīd require the actual bodies of his ancestors in the upper Big Void and also replica statues of them in the lower Grand Gallery?

The answer to this may be that these Grand Gallery statues of the ancestor kings and queens weren't simple profane statues but rather that they served a very specific and highly significant religious function related to the actual mummified bodies in the great Hall of the Ancestors (the Big Void), and that this function was related to the ancient Egyptian religious concept of the *ka*, or "double."

> The ka was a kind of astral double or spiritual duplicate of the deceased that was necessary for existence in the next world. When a person died, the ka continued to dwell in the body, and one reason for mummification was to ensure the ka a dwelling place. In case the mummy was damaged or destroyed, *many Egyptians were buried with a ka statue*. The statue was a portrait of the deceased that the ka could recognize and was meant to be an alternative dwelling for the ka if the mummy was not suitable. (italics added)[11]

If this newly discovered void high above the Grand Gallery is indeed a great Hall of the Ancestors that contains the actual bodies of Sūrīd's ancestors, then this would make sense as each of the ancestor statues believed by Pochan to have once stood in the Grand Gallery would have effectively served as each ancestor's ka double.[*20] It seems that the ancient Egyptians were taking no chances with their great recovery device.

By simply counting the number of these notches in the two pavements of the Grand Gallery, we may have an

idea of precisely how many statues (ka doubles) were once in place there and thus the number of ancestor kings and queens that may have been interred by Sūrīd in the hidden Hall of the Ancestors above: 27 pairs of notches = 54 ka statues = 54 ancestor kings and queens.

It may be no coincidence that from the time of King Menes, the first king of the unified kingdom, through the second king of the Fourth Dynasty, there were indeed a total of twenty-seven ancestor kings of Khufu as shown below.

THE TWENTY-SEVEN ANCESTOR KINGS OF KHUFU

Dynasty One (10 Kings)

Menes (Narmer), Hor-Aha, Djer, Djet, Den, Anedjib, Semerkhet, Snefer-ka, Horus Bird, Qa'a

Dynasty Two (11 Kings)

Hotepsekhemwy, Raneb (Nebra), Nynetjer, Weneg (Ouneg), Sened (Sendj), Peribsen, Sekhemib-Perenmaet, Neferkare, Neferkaseker, Hutchfa (Hudjefa), Khasekhemwy

Dynasty Three (5 Kings)

Djoser, Sekhemkhet, Sanakht (Nebka), Khaba, Huni

Dynasty Four (1 King)

Sneferu (Khufu's father)

Total = 27 kings

Of course, with so many ancient Egyptian kings and queens being reinterred in the great recovery device, it would surely be reasonable to expect some evidence pointing to this process of relocating Khufu's ancestors. As it happens, we may actually have such evidence, the final piece of this historical puzzle.

SHOW ME THE MUMMY

One of the great mysteries of Egyptology is that no original burial of any pharaoh has ever been found within the pyramids. Certainly, bits of human bone, mummy wrappings, and other minor artifacts have been discovered within various pyramids, but none of these have been conclusively proven to have come from an original burial of a king and most, in fact, have been shown to come from much later, intrusive burials.

The stock answer from the Egyptologists to this apparent paradox, this lack of pyramid mummies, is to propose that the pyramid tombs were robbed in antiquity and that every royal mummy was destroyed by the tomb raiders, usually by burning in an attempt to remove the precious amulets that were usually placed in the mummy's bindings during the embalming process. However, even more puzzling is that a number of undisturbed burials have been found with their sarcophagi still fully intact and *sealed*, and yet, when the stone box was opened in modern times, it was found to be empty, entirely devoid of any royal mummy!

One of the most bizarre of these occurrences took place at Giza in 1925 when the archaeological team led by the esteemed Egyptologist George Reisner discovered (by a fluke accident) the hidden, underground shaft tomb of Khufu's mother, Queen Hetepheres I (fig. 6.3a, p. 128), just a short distance to the east of the Great Pyramid. About this, Egyptologist Barbara Mertz writes:

Distinguished visitors and high government officials were lowered down the shaft in basket chairs and

> crammed themselves into the little room. The great moment had arrived. The heavy sarcophagus lid was prized up. In a hush of anticipation Reisner stooped to peer inside. Then he straightened and faced the distinguished audience. “Gentlemen,” he said wryly, “I regret Queen Hetephres is not receiving. . . . ” What puzzled Reisner was why the elaborate care and secrecy had been expended on the burial on an empty sarcophagus. It had been used for burial; certain discolorations on the bottom proved that much. . . .
>
> What disturbs me is the fact that there have been other sarcophagi found in place, unopened—and empty. Two of them date to the Third Dynasty, not so distant in time from the heyday of Hetephres. The cases are not exactly parallel, but yet there remains the incontestable and bewildering common feature of the empty sarcophagi.[12]

This particular empty tomb (designated G7000x by Egyptologists) remains, to this day, one of the greatest mysteries of ancient Egypt. The typical answer by Egyptologists in response to this conundrum is that the royal personage was perhaps lost in battle, or had drowned in the Nile to then be devoured by crocodiles, or was killed by some other calamity that meant the body was otherwise unavailable for burial. These explanations for the absence of the royal mummy are typically given without any evidence to back up the assertion, which, in time, becomes so embedded in the mainstream narrative that it becomes accepted as historical fact rather than seen as the mere speculation that it usually is.

Reisner writes in more detail of the moment the sarcophagus within that small burial chamber was finally opened:

> I never doubted that the mummy was in the coffin. . . . Every eye was fixed on the sarcophagus. The lid started from its place, quite easily breaking the five seals, and came up slowly a line at a time. We saw the inside walls of the sarcophagus gradually coming into view, and moment by moment looked deeper into the interior. It was soon evident that there was no inner case; and finally, after ten minutes, we all realized that the sarcophagus was empty and almost as clean as the day it was made. In my preliminary statement I had mentioned every possibility except the one which lay patent before us. There was no mummy in the coffin. . . . We examined carefully the inside of the coffin. A faint discoloration at one end showed that it had once been used. . . . At last we had found in the tomb part of the mortal remains of the mother of Cheops, probably all that will ever be recovered. These Canopic packages were in a chest which was made of the same stone and clearly by the same craftsmen as the alabaster sarcophagus, and proved that the body which once rested in the coffin had been mummified.[13]

Various artifacts within the burial chamber presented the names of Sneferu and Hetepheres, Khufu’s father and mother. Mud seals found among the tomb debris also bore the inscription “embalming house of Khufu,”[*21] and as such, Egyptologists concluded that the tomb belonged to Khufu’s mother, Queen Hetepheres I.[14] Here then we have a queen, Khufu’s mother, the most important queen in Khufu’s court, whose body had evidently not been lost to a Nile crocodile or, it would seem, to any other such disaster since the sarcophagus appears to have been used and the queen’s internal organs had been removed from the body, embalmed, and placed in a canopic chest in this burial chamber, deep under the bedrock of the Giza plateau.

Figure 6.3a. The underground burial chamber (G7000x) of Khufu's mother, Queen Hetepheres I, at Giza. (Image: George Reisner, 1925)

Figure 6.3b. When the sarcophagus was opened, the queen's body was missing. (Image: George Reisner, 1927)

Figure 6.3c. The canopic chest containing the viscera of Queen Hetepheres I. (Image: George Reisner, 1927)

Many of the queen's grave goods were also found in the chamber, including a number of sheets of gold. The presence of these gold sheets and other items of value ruled out the activity of tomb raiders, who would surely have taken these and, most likely, would have smashed the sarcophagus lid to access the royal mummy and the many precious amulets often placed within the mummy's linen wrappings. Furthermore, it is highly improbable that tomb robbers would have taken the time to replace the heavy lid back onto the sarcophagus after having removed the royal mummy.

Nonetheless, in an attempt to explain this mystery, Reisner goes on to offer his hypothesis as to why the queen's body was missing from the sarcophagus.

> This lady outlived Sneferu and was buried by her son Cheops [Khufu], probably beside her husband's pyramid at Dahshur. The [original] tomb did not remain long undisturbed and the queen's body was destroyed by the robbers who broke into the chamber. A clever prime minister seems to have been able to convince Cheops that little damage had been done. He ordered the lid of the alabaster coffin replaced to hide the absence of the queen's body, and the greater part of the unharmed burial equipment was moved to a secret shaft in front of the Great Pyramid in the new cemetery at Giza. Cheops apparently never discovered the ruse practised upon him by his minister, for he made an offering to his mother's spirit before the shaft was finally closed.[15]

No one can fault Reisner for his imagination here, but there are simply too many flaws in his hypothesis for it to be anywhere near tenable or even plausible. Indeed, Mark Lehner discounted Reisner's theory, writing:

> The hypothetical original tomb of Hetep-heres I at Dahshur has not been found (the only evidence for this queen's existence comes from G7000x). There is no textual evidence, contemporary with the 4th Dynasty or from later times, for the plundering of this tomb and the transfer of its contents to Giza. Reisner's reconstruction of events is based entirely upon the archaeological evidence gathered from G7000x. Nevertheless, his scenario was passed down in the literature, e.g., *The Cambridge Ancient History* (Smith 1971, 168), as historical fact.[16]

Lehner has his own view that this tomb of Hetepheres I (G7000x) was not a reburial of the queen at all but that this tomb was, in fact, the queen's original tomb, that her body was later transferred by Egyptian officials to the first of Khufu's three so-called Queens' Pyramids (G1-a), and that the lid of the queen's original sarcophagus in G7000x was then reseated and the sarcophagus once again sealed by Khufu's officials. Lehner writes:

> It is possible that . . . the queen mother's body was removed from the tomb [G7000x] before the final blocking of the shaft was effected. Could she have been buried in the first queen's pyramid tomb (GIa) with a new uncontaminated set of funerary equipment? . . . Even though this opening damaged the sarcophagus slightly, it does not appear the work of thieves who, as said earlier, would have taken the more expeditious approach of smashing the lid entirely. If not thieves, then it must have been officials who opened the sarcophagus.[17]

However, what goes against Lehner's hypothesis is that none of the queen's grave goods were transferred to the new pyramid tomb, G1-a, but appear to have been left behind in their entirety in the original tomb at Giza. Also, there are no inscriptions of any kind in or around pyramid G1-a attributing or in any way connecting this pyramid to Queen Hetepheres I. Finally, pyramid G1-a is believed to actually have been a tomb belonging not to Khufu's mother but rather to one of Khufu's wives, Merytyetes (a daughter of Sneferu and Hetepheres I). Lehner underlines

this with the following comment:

> Merytyetes' claim to the first queen's pyramid [G1-a] is thought to be strengthened by the loose principle of familial proximity— that tombs of immediate family members are situated close by one another (Smith 1971, 168). Since the large mastaba directly east of GI-a belongs to Kawab, and if the fragments assigned to his chapel do establish Merytyetes as his mother, the first queen's pyramid could be that of Merytyetes. Smith states this with some certainty: "the position of Kawab's tomb makes it certain that he was the son of Cheops's chief queen buried in the Pyramid GI-a. The above evidence strongly suggests that this chief queen was Merytyetes.[18]

The two other Queens' Pyramids to the south of G1-a are (tentatively) believed to have belonged to Queens Noubet (G1-b) and Henutsen (G1-c). All of which, of course, raises the obvious question: If all of the Queens' Pyramids had been assigned to other queens of Khufu, then where was Queen Hetepheres I, Khufu's mother, interred after being removed from her original underground tomb?

There is, of course, an entirely different narrative by which the circumstances and disappearance of this ancient queen's body can be simply and rationally explained, along with the other Third Dynasty kings' sarcophagi found in similar circumstances.

Lehner is probably correct in suspecting that G7000x at Giza was the original tomb of Khufu's mother, but given the complete absence of a mastaba superstructure over the queen's burial chamber, the haphazard arrangement of her grave goods, and the irregular positioning of the sarcophagus within the burial chamber, we are very much presented with the impression that this shaft tomb was but a *temporary* burial site for this queen. If we suppose that Khufu's mother had died some time before the great Hall of the Ancestors (the Big Void chamber) had been completed or was ready to receive its assembly of mummified ancestor kings and queens, then such a temporary tomb would have been needed for her temporary burial. What would not have been needed in this instance, of course, would have been any mastaba or pyramid superstructure over the tomb—her house of eternity—as her eternal home was to be alongside her husband (and other ancestors) within the great Hall of the Ancestors high up inside the Great Pyramid itself. It is perhaps worth noting here that the Grand Gallery and the Big Void are both oriented north-south and have sloping sides, just like the ancient Egyptian mastaba tombs.

This idea of G7000x being a temporary tomb for Khufu's mother is supported by the Egyptologist Vivienne Gae Callender, who writes:

> As Lehner initially suggested, Khufu may indeed have intended his mother to have pyramid G1a in the Eastern Cemetery; subsequently, during the course of that pyramid's construction, she may have died. After her mummification, there would have been a funeral, complete with a procession of goods for the queen's afterlife, but then the need will have arisen for a place to store these things until the completion of the pyramid. A previously abandoned shaft tomb was thus used to hold Hetepheres' body and grave goods until her pyramid chamber was made ready (indications of the temporary nature of her interment are the incorrect positioning of the sarcophagus, the non-traditional treatment of the canopic chest, and the evident disorder of the funerary offerings). It must have been intended as a temporary tomb because, at ground level, the very inconvenient proximity of the shaft to the king's mortuary temple and causeway would certainly ensure that this place was never intended to have a superstructure, as it would have been out of place in the final design of the Eastern Cemetery.[19]

The mother of Khufu, according to Egyptologists, was placed in a temporary tomb until her permanent tomb was ready. But this permanent tomb wasn't pyramid G1-a as Egyptologists assume, or any of the other small satellite pyramids beside the Great Pyramid. It was the Great Pyramid itself. Upon completion of the Big Void, Khufu's officials would have reopened tomb G7000x, removed the mummy of Hetepheres I, and transferred her, not to a satellite pyramid as believed by Egyptologists Lehner and Callender (and for which there is no evidence), but to the Hall of the Ancestors in the Big Void, high up within the Great Pyramid, to be placed alongside her husband, Khufu's father, Sneferu, the last in a long line of his ancestor kings and queens to be set inside Khufu's great

recovery device, ready to intercede with the gods. The queen's original sarcophagus would have been ritually resealed and her temporary tomb closed up, a process that would likely have occurred with the relocation of all of Khufu's ancestor kings and their queens, leaving behind only their resealed but now empty sarcophagi for modern Egyptologists to puzzle over.

Finally, as with all the other ancestor kings and queens placed within this great Hall of the Ancestors, a ka statue would have been placed for the queen in the Grand Gallery below to serve as a surrogate double for her ka should her mummified body become too decayed.

And so, with the full lineage of Khufu's ancestors now in place, the Big Void's Hall of the Ancestors would then have been sealed as the pyramid was built upward to its completion.

Perhaps the simple truth of the missing body of Khufu's mother and the empty sarcophagi of the Third Dynasty kings is precisely as the Coptic-Egyptian oral tradition tells us: that King Sūrīd/Khufu took the bodies of his ancestors and placed them in a hidden chamber high up within the Great Pyramid to protect them from the foretold deluge.

What is also perhaps significant here is that the examples of sealed and empty sarcophagi that have been found appear only from the period before and up to the construction of the Great Pyramid. This is to say that we find these peculiar empty burials only among Khufu's *ancestor* kings and queens and not among any of those kings or queens that came after Khufu's reign. The empty sarcophagi from these later dynasties are never resealed, and the lids have often been smashed and destroyed by tomb raiders to gain access to the mummified body and the precious amulets within. Had this sealed, empty-sarcophagus phenomenon been a normal practice of the ancient Egyptians of Khufu's time (and thereafter), then we would surely have found examples of such burials from the period *after* the time of Khufu—but we don't. Thus it seems we have evidence of these peculiar reburials only from among Khufu's ancestors—just as the Coptic-Egyptian Sūrīd narrative tells us.

Head Hunters

The ka surrogate statues that once likely stood within the Grand Gallery may also help to explain another of Egypt's strange enigmas—the so-called Reserve Heads. Around thirty-seven of these sculpted limestone heads (male and female) were found in a number of Fourth Dynasty tombs, mostly in the Western Cemetery at Giza and, bizarrely, most seem to bear the scars of deliberate mutilation whereby the ears of each head have been severely damaged or even entirely removed. Many also present a deep vertical gouge running down the back of the head. Egyptologists struggle to adequately explain the seemingly deliberate damage to these heads since acts of this kind occur only rarely in other Egyptian sculpture. If we imagine, however, that each of these heads once belonged to a full ka surrogate statue within the Grand Gallery then we may begin to perceive a better solution to this particular mystery.

Since the only access to the Great Pyramid in ancient times would have been via the very narrow Well Shaft,[*22] it would have been impossible to remove a full ka statue, so robbers merely took the most valuable part, the statue's head. To remove the head would first have required the levering of the statute from its wall and pavement mountings. The most obvious initial point of attack would, naturally, have been each statue's ears since these protrusions would effectively have served as a nub or boss to provide a fulcrum point upon which wood or metal levers could be placed to pry the statue away from the gallery wall. When the ears eventually sheared or crumbled as a result of the applied pressure, the robbers would then place their lever behind the statue's head to apply further pressure to force the statue fully from its mountings and, in so doing, cause the deep gouge observed in the back of each of the affected heads.

With the statue now free from the wall, the head would be cut from the torso, removed from the pyramid (via the Well Shaft) and the torso probably broken up and discarded over the

millennia.

KHUFU'S TOMB?

But what of Khufu himself? Would he, after his own death, have had himself placed within the great recovery device he had built? In short, probably not.

The whole point of the great Hall of the Ancestors is that it would be completed and sealed as quickly as possible and that the hall would become entirely inaccessible once completed. The mummified bodies of the ancestors would have been lowered into the chamber when its roof was still open and the chamber accessible. When the pyramid was built upward to its completion, the chamber (the Big Void) would have then become completely sealed and inaccessible, even to Khufu (who was still the living Horus king). Unlike all the other known chambers within the Great Pyramid, there would be no access passages of any kind leading to the Big Void chamber. Indeed, this is its main security feature. If there is no leading passage, then it becomes virtually impossible for any robber to know where to even begin to search and tunnel for such a hidden chamber. And it might even be that the known chambers and passages within the pyramid may actually have been (partially) designed as a decoy system from the very beginning of the project. Khufu, however, could never in his wildest imagination have anticipated the spaceage technology that could potentially confound his great plan.

One of the peculiar aspects of the Great Pyramid is that it invites exploration of its internal passages and chambers and has done so right from its very inception.[*23] The Descending Passage, for example, was never filled in and sealed, and it seems to have been accessible from the remotest times. Khufu most assuredly would not have wanted to have been buried within a pyramid with an easily discovered passage system that invited and led tomb robbers more or less straight to the upper chambers of the structure. Granite blocking stones would have been no barrier to determined robbers, men likely well practiced in quarrying heavy stone. And having entered what they believed (and what Egyptologists today believe) to be the king's burial chamber and finding the granite box there filled with nothing more than black Egyptian earth,[†24] then, with no other obvious passageways to examine, they would likely have given up in disgust. In short, if the passageway or entrance shaft to a chamber is difficult to discover (such as that of Hetepheres I), then the chamber at the end of the passageway will likely remain undisturbed for a very long time. And if there is no passageway or shaft whatsoever leading to the chamber, then the chamber and its contents could likely remain hidden, potentially forever.

But if the great Hall of the Ancestors was now sealed (possibly many years before Sūrīd/Khufu's death) and with no passageways leading to this chamber for any later interment, then what became of this king? Where was Khufu buried? While some ancient commentators claim that Khufu was buried within the Great Pyramid, others, such as Diodorus Siculus, question this. He writes:

> And though the two kings built the pyramids to serve as their tombs, in the event neither of them was buried in them; for the multitudes, because of the hardships which they had endured in the building of them and the many cruel and violent acts of these kings, were filled with anger against those who had caused their sufferings and openly threatened to tear their bodies asunder and cast them in despite [*sic*] out of the tombs. Consequently each ruler when dying enjoined upon his kinsmen to bury his body secretly in an unmarked place.[20]

So if not inside or beneath the Great Pyramid, then where? The ancient Egypt researcher Ian Onvlee may have the answer. He proposes:

> There is a pyramid further south along the Nile that does contain the cartouches of Khufu. This pyramid stands at El-Lisht, near Meidum, and has no associated pharaoh, although some have thought of King

> Seankhare, Nebtaire, and Amenemhat I. Strangely enough, although this pyramid contains many cartouches of Khufu in the related temple complex, their existence has been interpreted as the result of pillage from the Great Pyramid. . . . Under normal scientific scrutiny such inscriptions would automatically have instead led Egyptologists to assign the El-Lisht pyramid to this pharaoh. The pyramids of Dashur and Meidum have been assigned to Khufu's father Sneferu on much weaker grounds![21]

The pyramid at El-Lisht has been attributed by Egyptologists to the Twelfth Dynasty pharaoh Amenemhet I because his name was found on fragments of reliefs in the foundations of the pyramid's funerary temple. They also believe that, for spiritual reasons, Amenemhet I appropriated stones from other pyramid sites, including Khufu's, to build his own pyramid, thereby perhaps explaining how the name of Khufu (and the names of other ancient Egyptian kings) came to be in this pyramid.

Another possibility for the location of Khufu's actual tomb comes to us from a Japanese team led by the Egyptologist Sakuji Yoshimura. During their exploration of the Western Cemetery of the Giza plateau in 2017, the team reported the discovery of a massive underground chamber complex deep below the Giza bedrock, a location they dubbed Akhet Khufu (the Horizon of Khufu) and which they believe will reveal the true burial site of Khufu. Whether this claim turns out to have any merit remains to be seen.

But Sūrīd/Khufu had achieved his goal: the construction of a monumental recovery device for his kingdom that contained everything, including the regenerative power of the all-important ancestor kings and queens—the Osirian Kings—essential for the kingdom to revive and reawaken after the great deluge had finally abated. And it seems that Khufu may have had himself buried close by, deep underground in the Western Cemetery at Giza. From the pyramid texts, we read,

> This pyramid of the king is Osiris, this construction of his is Osiris; betake yourself to it, do not be far from it in its name of pyramid.

Wherever Khufu is buried, it seems that he will not be far from his Great Pyramid.

NEXT STEPS

If science can devise a nondestructive means to explore the Big Void's Hall of the Ancestors, perhaps using an endoscopic camera, and it finds nothing of significance, then we can simply seal off the small drill hole and leave things be.

However, if the camera finds a whole series of stone boxes (sarcophagi), then we might need to find a way of exploring the chamber more thoroughly. Assuming there is the will to do this, and the stone boxes are opened and Khufu's ancestors are discovered, then this would surely prove to be the discovery of the millennium. If the stone boxes are inscribed with the deceased's name and titles, then we may well find among those the name of Khufu's mother, Queen Hetepheres. Such a discovery would, of course, prove beyond a reasonable doubt that Khufu built the Great Pyramid and that he did so not for his own personal burial but as a recovery device for his kingdom, just as the CopticEgyptian oral tradition informs us.

If, on the other hand, no such discovery is found, then the purpose of the Big Void as being the location of Sūrīd/Khufu's ancestors—the central proposition of this book—will have been falsified. This is not to say, of course, that this means the Great Pyramid was built as a tomb for Khufu; the monument may still have been built as part of a recovery system for the kingdom with the ancestor kings and queens having been relocated to some other safe haven.

7

End of Days

Dating The Next Pole Shift

In chapter 3, we learned that Australian astronomer George F. Dodwell found compelling evidence that the Earth's polar axis had been disturbed circa 2345 BCE, possibly as the result of a pole shift event. That there may have been two pole shift events in our remote past suggests that these events are not merely randomly occurring calamities but that they are actually an inherent feature of the Earth's natural geodynamic cycle, occurring after a regular interval, many thousands of years apart. But how might we be able to determine these cycles?

Recall what we have learned from the Coptic-Egyptian oral tradition: that King Sūrīd sent his astronomer-priests to study the stars in the heavens. "The king then directed the astrologers to ascertain by taking the altitude whether the stars foretold any great catastrophe, and the result announced an approaching deluge."[1]

In measuring the altitudes of the stars, it's possible that Sūrīd's astronomer-priests made a much more profound discovery—the *periodicity* of this cycle of cataclysm. If so, then the ancient builders of Giza would have been able to predict when the next pole shift event was due to occur (in their future) and perhaps may also have devised a means of recording and passing on this crucial knowledge to future generations. Again, the Coptic-Egyptian texts suggest that this is exactly what they did. Recall this portion of text: "The king, also, deposited the instruments, and the thuribula, with which his forefathers had sacrificed to the stars, and also their writings; likewise, the positions of the stars, and their circles; together with the history and chronicles of time past, of that, which is to come, and of every future event, which would take place in Egypt."[2]

In this passage, we may have an indication that the designers and builders of Giza did, indeed, ascertain the periodicity of this "disturbance of the heavens" (pole shift events) by observing the "positions of the stars, and their circles," and with this knowledge, they were able to determine precisely "that, which is to come," that is, when the next such disturbance would occur. Furthermore, it seems from this passage that this knowledge was somehow "deposited" (that is, encoded) "within" the pyramids. But how might this have been done?

If we accept that the star shafts and the alignments of the main pyramids were designed primarily to encode the date of their construction (perhaps shortly after an initial, more ancient pole shift event was observed), then it stands to reason that it would likely require additional structures to record the moment the next disturbance was likely to occur, as well as the specific periodicity between these events (thereby allowing future generations to calculate when future shifts were likely to occur).

MARKING TIME

In the 1980s, Mark Lehner (working with the late Egyptologist Hans Goedicke) noticed a peculiar alignment of the Giza pyramids, writing: “A great SW-NE diagonal cuts the diagonal of Menkaure’s first queen’s pyramid, touches the SE corner of his pyramid, cuts the diagonal of his Mortuary Temple, passes the SE corner of the Khafre Pyramid court, cuts the diagonal of the fore-temple of Khafre’s Mortuary Temple, touches the SE corner of Khufu’s Pyramid, very nearly cuts the diagonal of his first queen’s pyramid and ends in a large block of masonry built into the escarpment.”[3]

In another instance, Lehner also noted, “These alignments are out by just about the amount that we would expect from methods of sighting and measuring using long cords across a kilometre of sloping plateau.”[4]

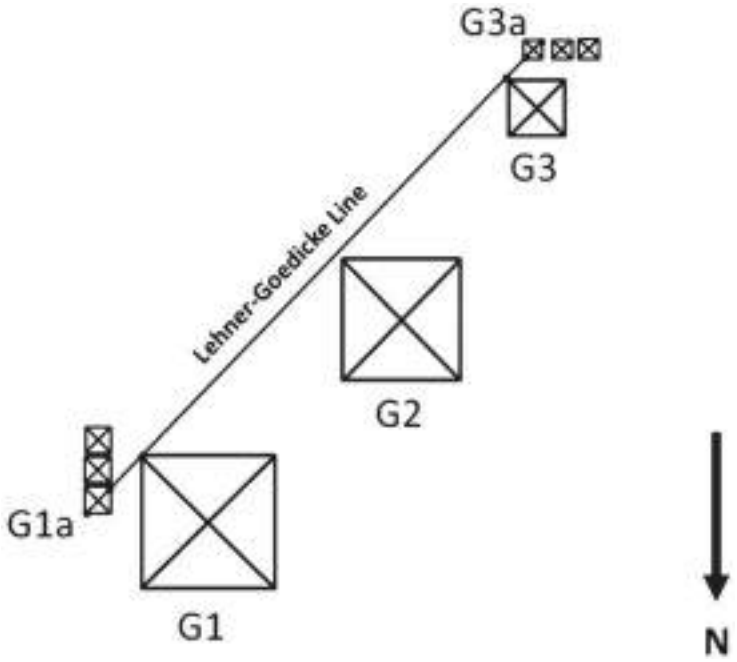

Figure 7.1. The Lehner-Goedicke line at Giza.

While most Egyptologists fail to recognize that there is a very specific purpose to this grand alignment (fig. 7.1) and tend to play down its significance, there are some who assert that it was made in order to create an alignment with the ancient city of Heliopolis (Iunu), as explained by the Italian archaeoastronomer Giulio Magli. “It is known that the disposition of the Giza pyramids on the ground is characterized by what is customary called the ‘Giza diagonal.’ It is an ideal line which connects the south-east corners of the three pyramids with good accuracy. It was observed already many years ago that this ‘Giza diagonal’ might have had a symbolic meaning, since it points in the direction of the city of Heliopolis, north-east of Giza.”[5]

But the alignment isn’t quite as perfect as Magli asserts because, for some unknown reason, the middle pyramid (G2)—unlike the two other main pyramids—sits several meters back from the theoretical Lehner-Goedicke line (fig. 7.2, p. 142), a peculiarity that Egyptologists are at a loss to explain other than to assert the notion of a builder’s error. However, this slight offset of G2’s southeast corner that creates this small gap from the theoretical line was no error. It was likely to have been deliberately created by the builders and for a very specific reason, as we shall shortly see.

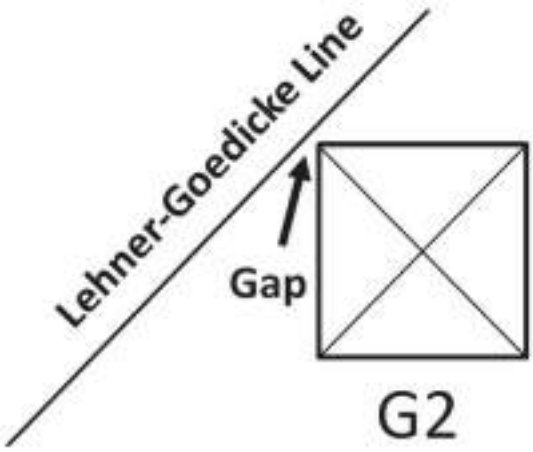

Figure 7.2. The southeast corner of the middle pyramid (G2) sits slightly off the Lehner-Goedicke line.

The key aspect of this Lehner-Goedicke line isn't so much concerned with the three large pyramids (although they do feature) but rather with the two sets of smaller satellite pyramids to the east of the Great Pyramid (G1) and those to the south of Menkaure's pyramid (G3) that are "connected" at the endpoints of this theoretical line (which can be seen in fig. 7.1). These two sets of three satellite pyramids are essentially the larger pyramids in miniature in that they also represent Orion's Belt but at very unique and specific moments in its precessional cycle.

What immediately stands out here is that these two sets of satellite pyramids are aligned at right angles to each other. This arrangement is no accident and serves a very specific purpose: it effectively transforms the simple Lehner-Goedicke line into a stellar time line or "star clock" that the designers used to mark the timing of the next pole shift cataclysm! This is to say that while the main pyramids possess features (such as the pivot angle and star-shaft alignments) that could help us date the first pole shift event when Sūrīd's astronomer-priests observed the stars wandering from their normal course across the heavens,[*25] the placement of the two sets of satellite pyramids appears to have been a design feature to encode and pass down crucial additional knowledge that would enable future generations to determine the periodicity of, and the date when, the *next* pole shift event was likely to occur.

To understand how this stellar time line functions, we need to understand a little about the precessional motion of the Earth and how this affects our observation of the Orion Belt stars over time. To do that, let us first consider the (apparent) motion of an object much closer to home—the sun.

Imagine that you live near to the equator and that you get up each morning for an entire year and go outside to observe the sun rising on the eastern horizon. Let's say you begin your first observation on the day of the summer solstice (June 21) when the sun is 23.5° north of due east, its maximum northerly position at the equator (an angle governed by the Earth's 23.5° axial tilt). As each day passes, you notice that the sun shifts slightly southward along the eastern horizon toward due east (toward the autumn equinox point), and onward it travels until it reaches the winter solstice point (23.5° south of due east), its farthest southerly extent on the eastern horizon (fig. 7.3, p. 144).

When the sun rises at its winter solstice position (fig. 7.4), it then appears to change direction (due to the Earth being halfway into its orbit around the sun) and begins to move northward along the eastern horizon for the next six months, past the spring equinox point and onward toward the summer solstice point, whereupon, at that moment, it changes direction again—a pendulum cycle that repeats forever.

Now imagine that we wanted to mark a specific date in the year—let's say July 17 (fig. 7.5)—how could this be done?

The placement of two stone obelisks aligned to the sunrise on this date would serve to permanently mark July 17 (fig. 7.6).

An alternative method of marking a specific date would be to place two markers on the ground symbolizing the summer and winter solstice points with a line drawn on the ground connecting these two solstice markers—a solar time line (fig. 7.7, p. 146). Since we know there are 365 days per year (182.5 for the half year) and we know the dates when the solstices occur, by measuring the length of the line between the two solstice markers, the correct

relative position can be calculated along the line for the July 17 date (26 days or 14.2% along the line from the summer solstice marker) and an obelisk or some other marker could then be placed at that precise spot along the solar time line, marking that particular date.

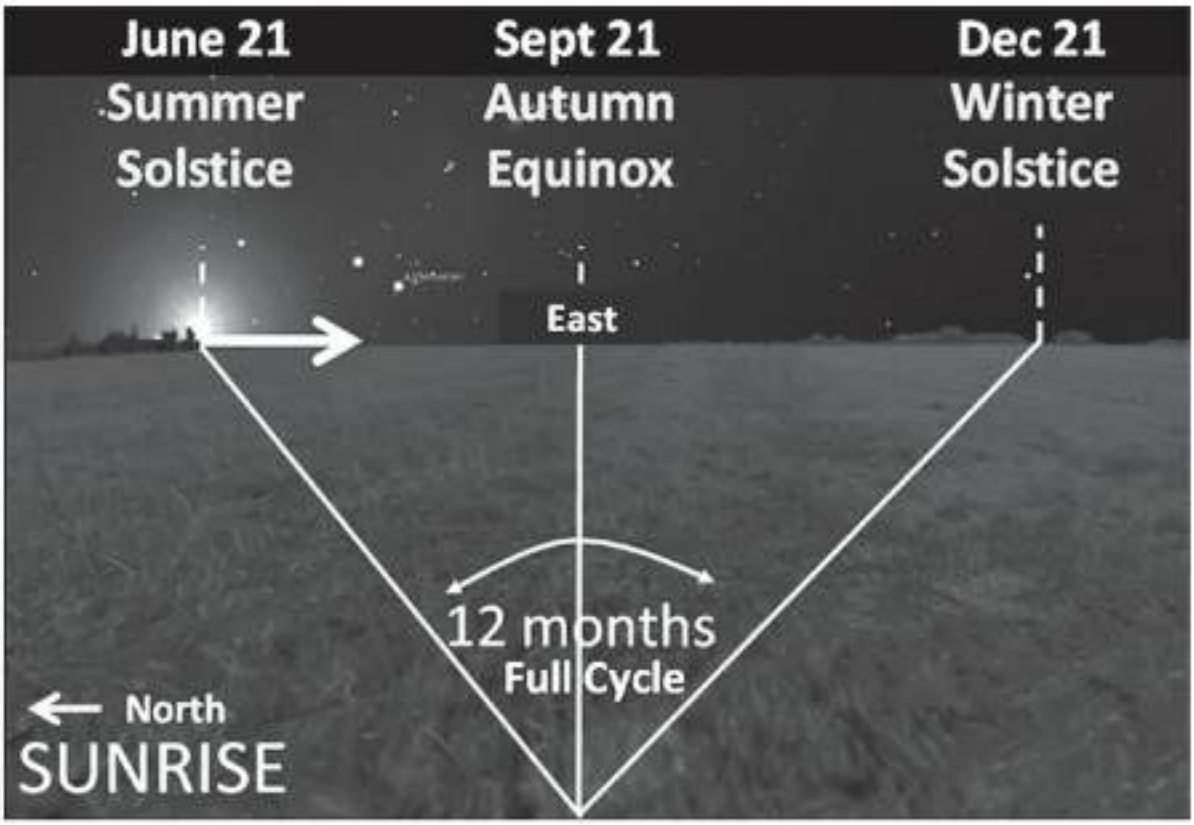

Figure 7.3. The sun rising on the summer solstice. Each day, the sun rises slightly farther south along the eastern horizon, past the autumn equinox, toward the winter solstice point.

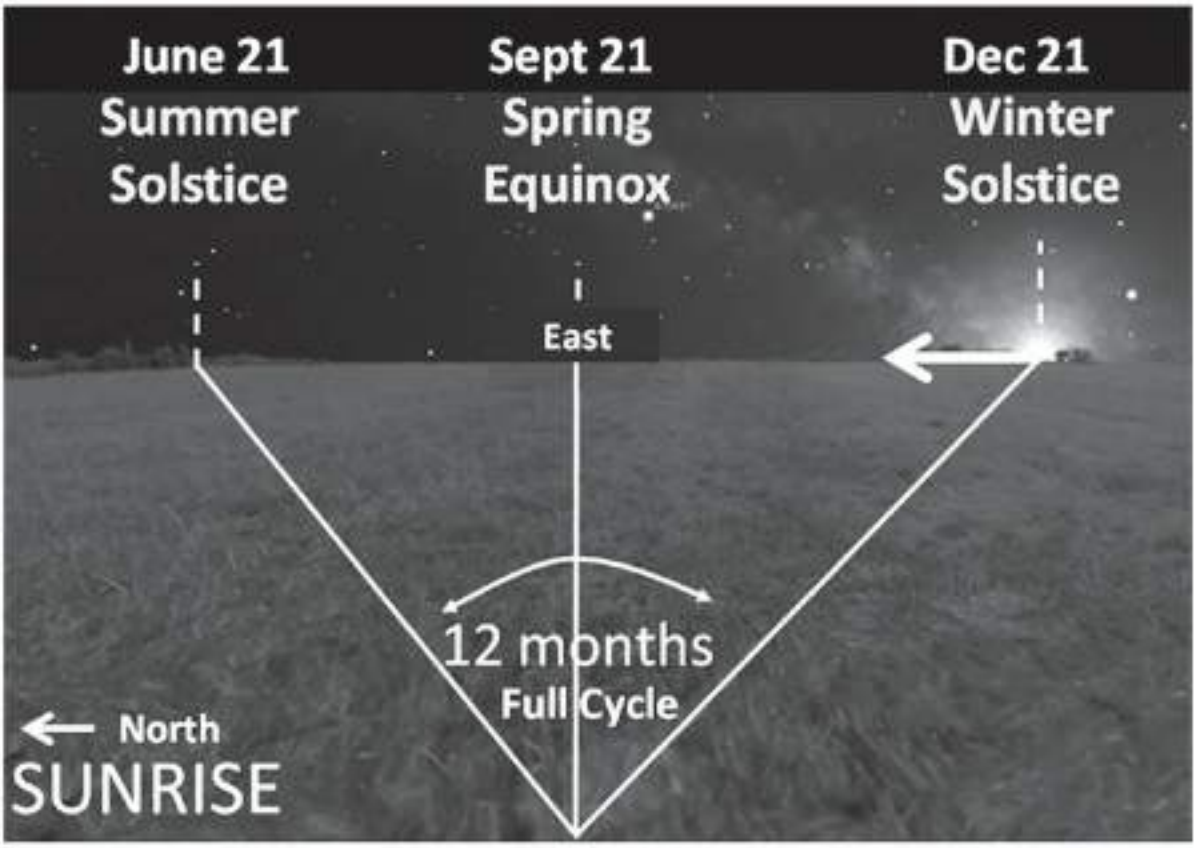

Figure 7.4. At the winter solstice point, the sun (apparently) changes direction on the horizon and now moves toward the spring equinox point and onward toward the summer solstice point, where it will change direction again—like an eternal pendulum swing.

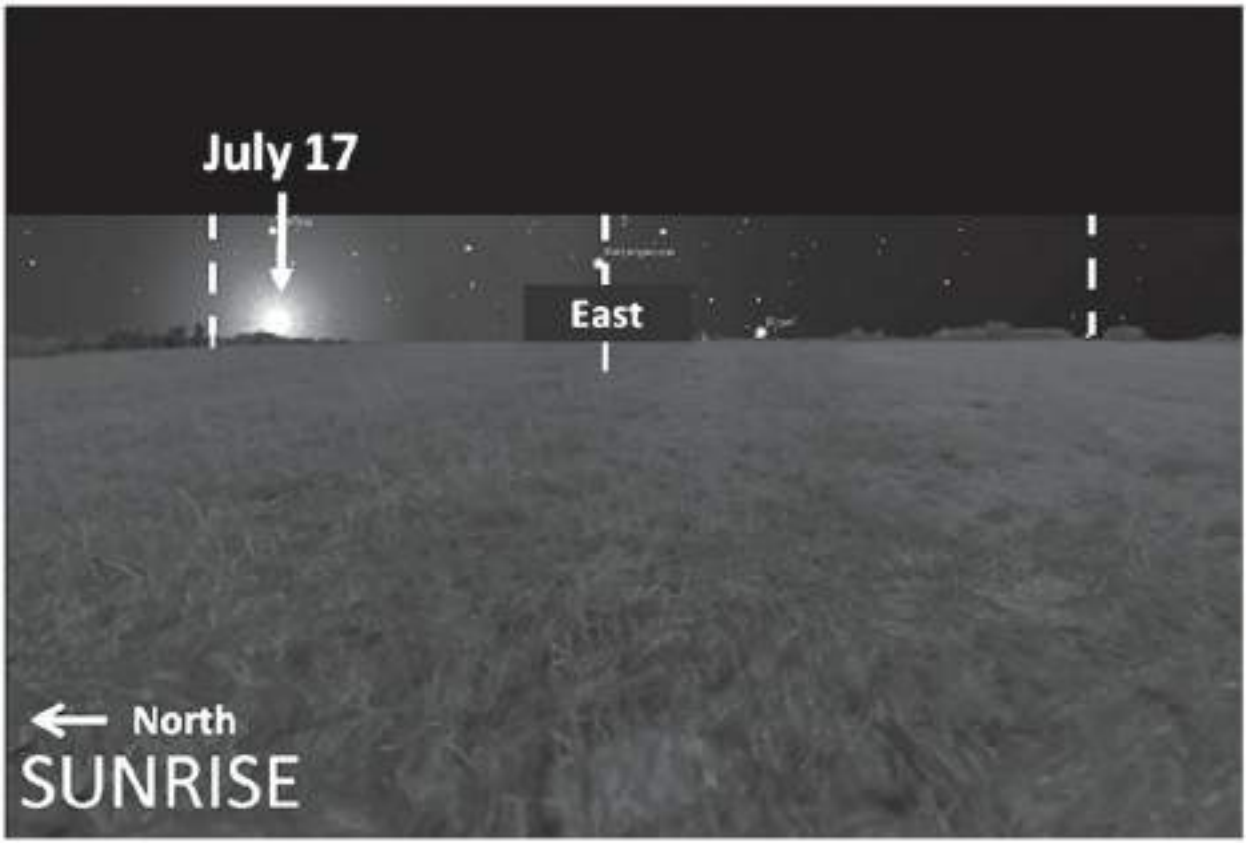

Figure 7.5. Sunrise on July 17.

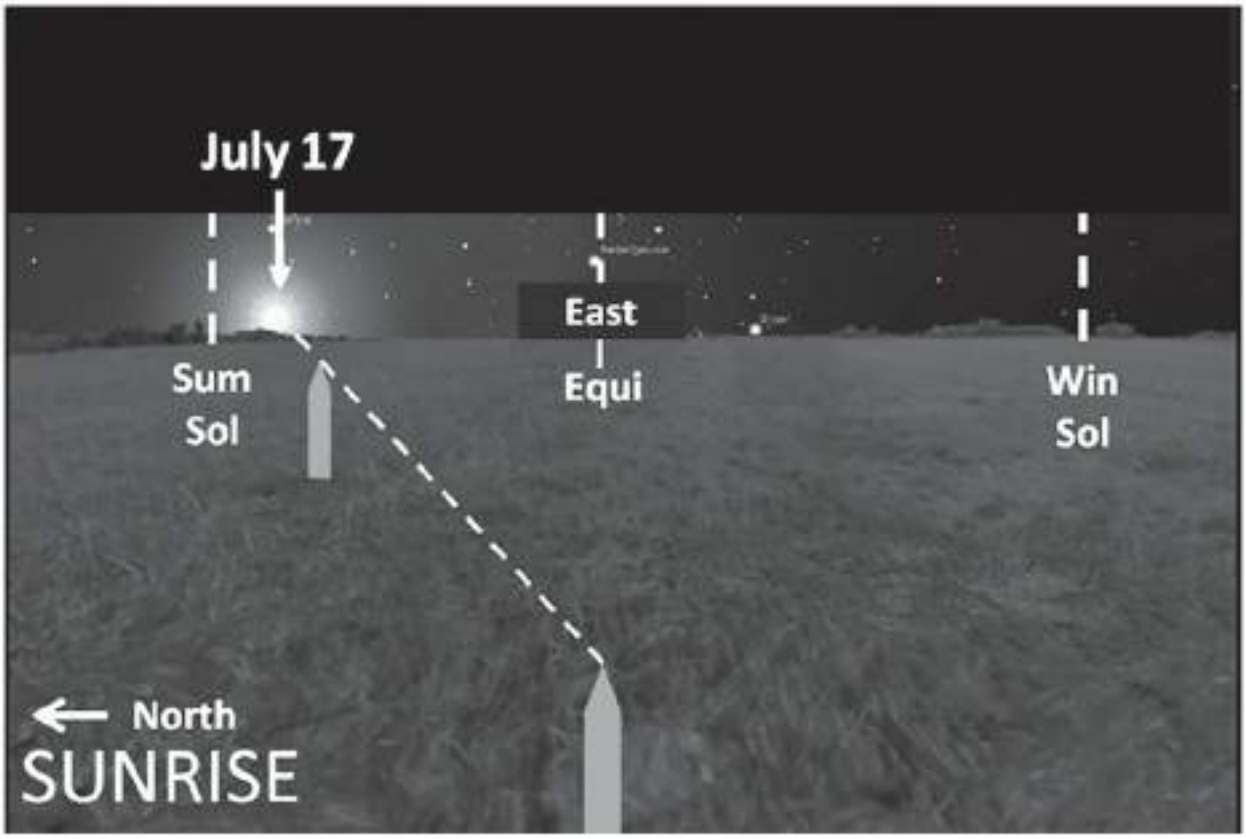

Figure 7.6. An alignment of two obelisks toward the sunrise would mark the date of July 17.

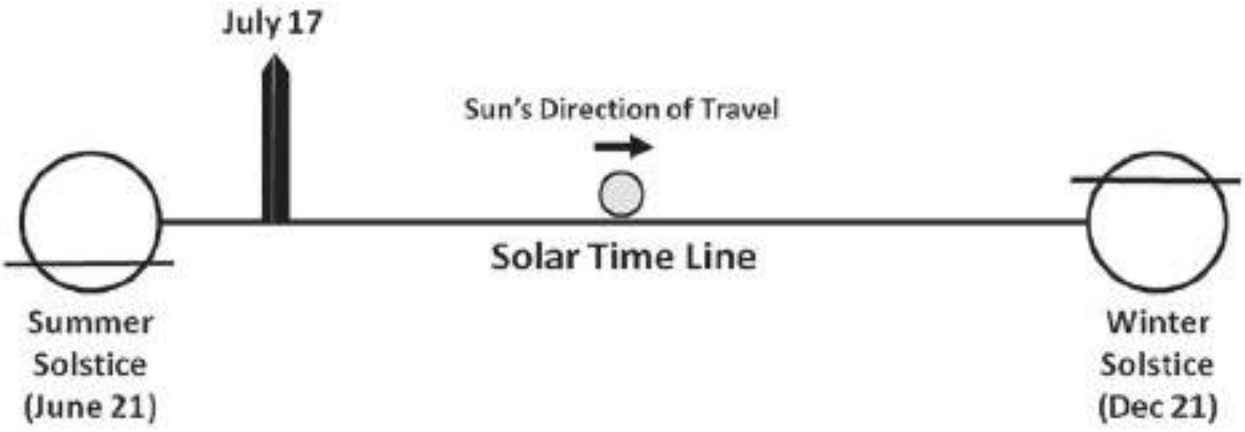

Figure 7.7. A stone marker is placed between the two solstice markers to mark the solar time line with the date July 17. (Note: The part of the circle above the short horizontal line in the solstice symbols indicates the day length. The summer solstice symbol indicates the longest day, while the winter solstice symbol indicates the shortest day.)

However, there's a minor complication with both of these methods. The direction of travel the sun is seen to be making on the eastern horizon (i.e., heading toward the summer solstice or heading toward the winter solstice) will determine the actual date. In the July 17 example, this date can only be July 17 when the direction of travel of the sun is southward toward the winter solstice marker. If the sun was traveling in the opposite direction, northward

toward the summer solstice, our date marker would then be indicating the date of May 17 (fig. 7.8).

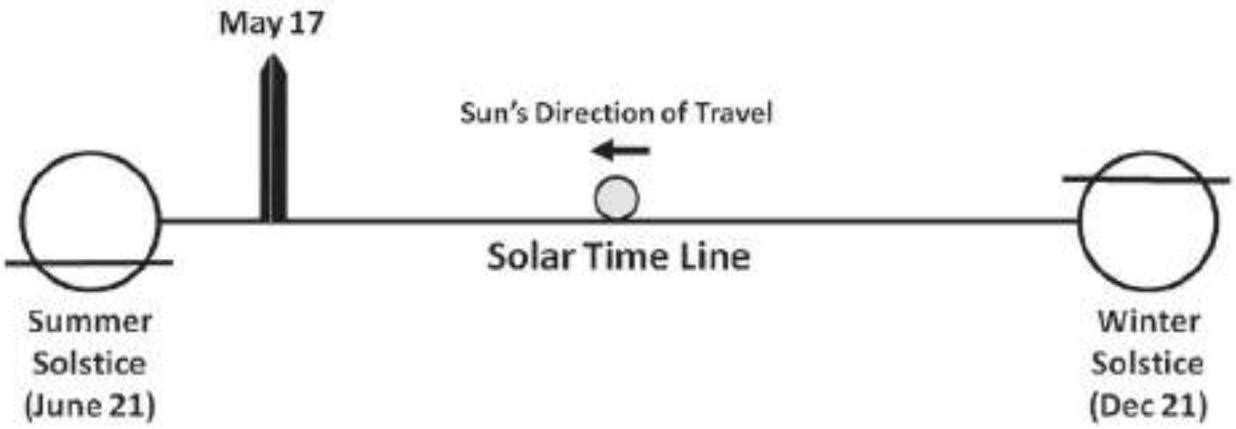

Figure 7.8. The date marker stone at this same position between the two solstice markers can also indicate May 17 if the sun is moving northward toward the summer solstice marker.

And so, because any point along the solar time line can be one of two possible dates (depending on whether the sun is moving toward the summer or winter solstice markers), then we require some additional information (a symbol of some kind) to indicate to us which of the two solstice points the sun was moving toward when this particular alignment was made (that is, when the date marker stone was placed on the solar time line). With this additional information, we can then correctly identify the correct alignment date. The additional marker could be anything, for example, a simple center dot within the solstice symbol to indicate that the sun's direction of travel was toward this particular solstice (fig. 7.9). It's not being said here that the sun has actually reached the marker stone (the solstice point), only that, at this particular moment, the direction of travel is toward this particular marker stone.

Had the sun been heading toward the summer solstice point when the date marker stone was placed on the solar time line, then this would, conversely, indicate the date of May 17 (fig. 7.10, p. 148). Another way of thinking of this issue is to consider the spring and autumn equinoxes. Both equinoxes will, naturally, occur when the sun reaches the midpoint of the solar time line. However, without knowing the direction of travel of the sun, it is impossible to know if a marker stone aligned to the equinox point on the solar time line is marking the spring (March 20) or autumn (September 22) equinox.

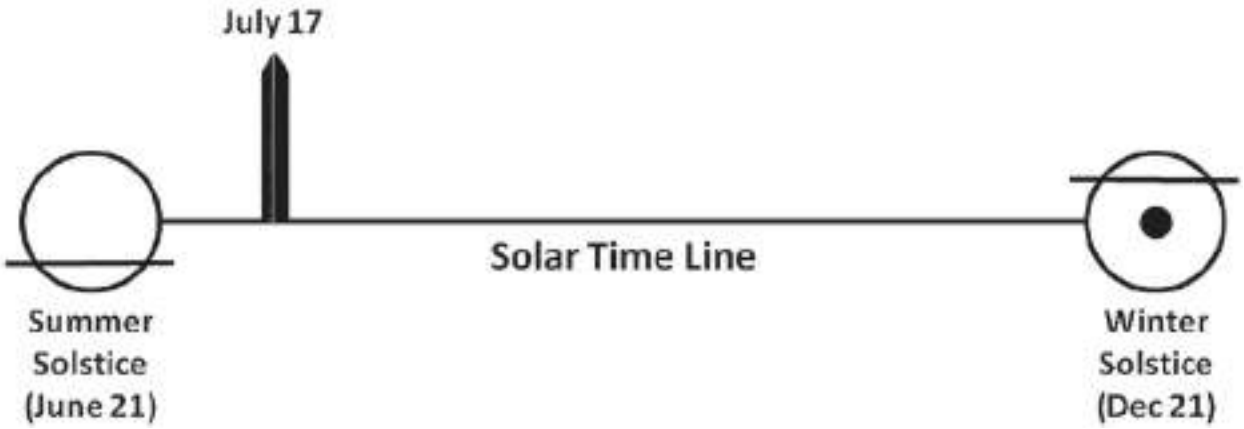

Figure 7.9. The additional symbol (center dot) placed within the winter solstice circle indicates the direction of travel of the sun (in this figure, toward the winter solstice) when the date marker stone was

placed, giving the date unequivocally as July 17.

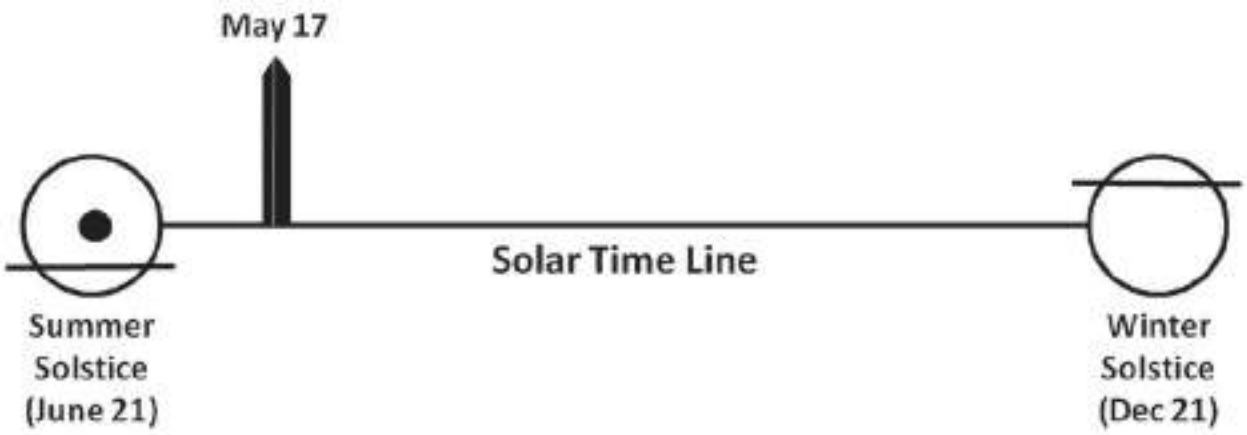

Figure 7.10. With the additional symbol (the center dot) placed within the summer solstice marker, this then indicates the direction of travel of the sun was toward this solstice when the date marker stone was placed, thereby giving the date as May 17 (as opposed to July 17).

Such a dating method is perfectly adequate if we merely wish to mark a specific date within the solar year. Indeed, many of our ancient monuments all over the Earth are aligned to the solstices and also the equinoxes. Such solar alignments would have been created to provide vital information to assist ancient farmers with the planting and harvesting of their crops. However, if we wanted to mark a date beyond a single calendar year, how might we achieve that? Consider, for example, Halley's comet, which passes by the Earth every seventy-five years. How can we mark the date of its next arrival using the solar time line method? The simple fact is that this method would be entirely inadequate in predicting (and marking) the return date of Halley's comet since the solar calendar time line is limited to only 365 days—a single year. To record events on the time line with a periodicity greater than one solar year requires not a solar time line but a *stellar* time line, so we must turn to the stars.

THE GIZA STELLAR TIME LINE

At Giza, we find that our two solstice markers are presented to us, not with two solar solstice markers, as in our example above, but with two stellar markers in the form of the two sets of satellite pyramids,[*26] which represent the two "solstices" of Orion's Belt. These two significant moments of the belt stars aren't referred to as solstices but rather as culminations, and our two belt markers essentially perform the same function as our solstice markers, although they mark a much longer period of time. The duration between these two pivotal moments of Orion's Belt —the two solstice/culmination points—isn't a mere six months (twelve months for the full return cycle) as in the solar time line example above, but has been calculated by modern astronomers to be 12,886 years for the half cycle (25,772 years for the full return cycle)!

Using astronomy software, we can observe that over this long period of time, the belt stars will rise on the eastern horizon vertically at the moment of their maximum culmination (their "summer solstice"), and around 12,886 years later, at the moment of their minimum culmination (their "winter solstice"), they will set horizontally on the southwest horizon (fig. 7.11, p. 150). Just like the two solstice moments of the sun, the two culminations of the belt stars are the moments when they appear to change direction when halfway through their full cycle to return to their point of origin.

Thus, we can observe that the two sets of satellite pyramids at Giza have been carefully positioned (perpendicular to each other) on the plateau to mimic the key transitional moments (the two solstices/ culminations) of the precessional motion of the belt stars over this lengthy duration—a stellar time line of 25,772 years as opposed to a solar time line of just a single year (fig. 7.12).

This stellar time line can then be used to mark a specific year (rather than a specific day, as in our solar time line example above), up to a maximum of 25,772 years into the future. But how would the designers have marked or encoded a particular date onto this stellar time line, the Lehner-Goedicke line? To help answer this will require the following assumptions:

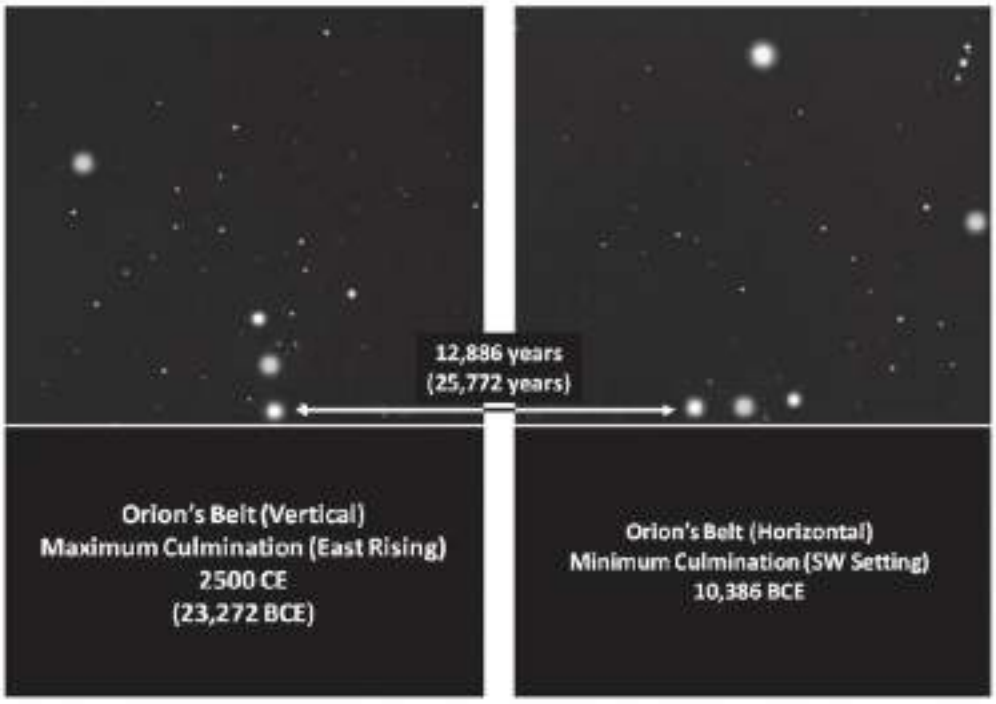

Figure 7.11. The two "solstices" (maximum and minimum culmination) of Orion's Belt, circa 2500 CE and circa 10,386 BCE. Calculated using Stellarium v.0.19.1 star-mapping software, the duration between these two culminations is 12,886 years (25,772 years for the full return cycle). Note: the belt stars are presently moving toward their maximum culmination, which will occur circa 2500 CE.

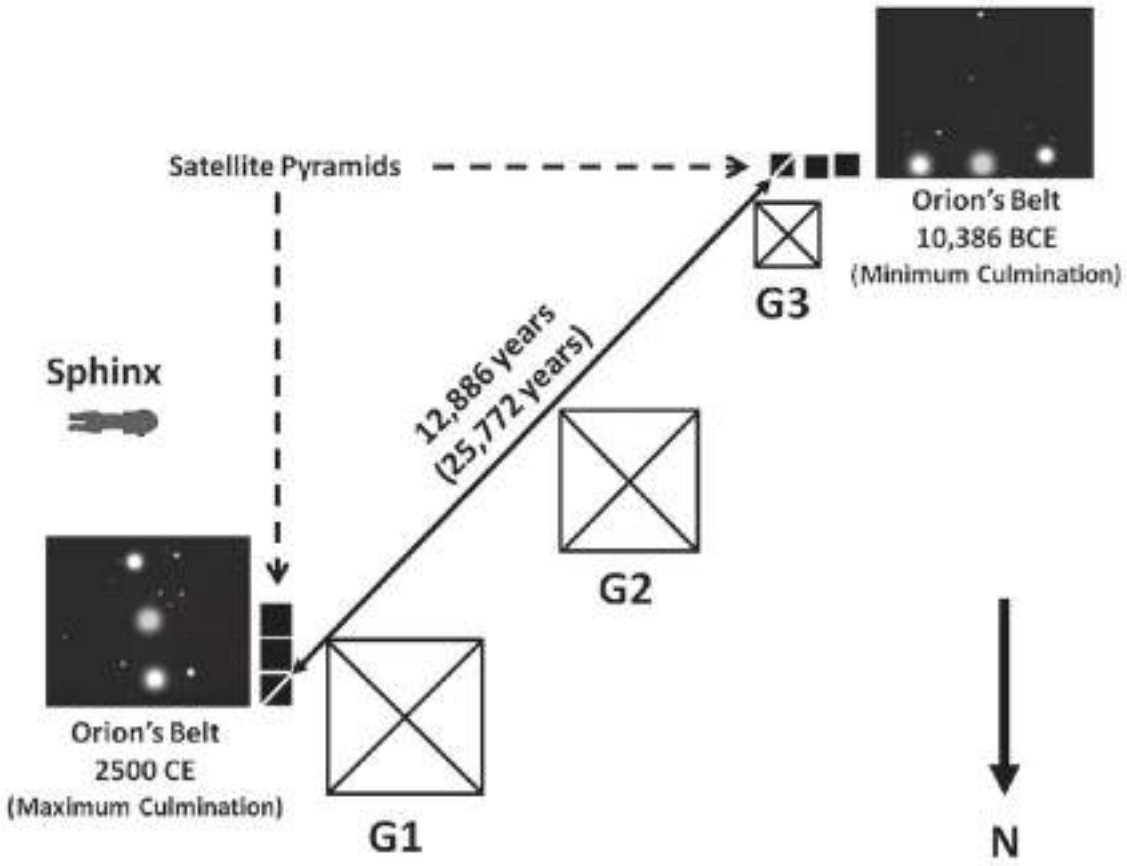

Figure 7.12. The two solstices of Orion's Belt are symbolized on the Giza plateau with the perpendicular arrangement of the two sets of satellite pyramids, which mimic the same perpendicular arrangement of the Orion Belt stars (rising and setting) at the moment of their two culminations.

1. The designers would wish to encode the year of the next pole shift event. Let's call this "Event Z." This would be a single future date for Event Z (from their perspective), which would require a single marker (data point) to be placed somewhere along the Giza stellar time line.
2. The builders would also encode the periodicity, the number of years that will pass between each pole shift event. The periodicity will require a further two markers (data points) to be placed on the Giza stellar time line (one to mark the periodicity count's *starting* point and a second marker to indicate the periodicity count's *ending* point).
3. We must assume that the builders would be consistent in how they marked the Giza stellar time line for each of the three data points and that they would have included a means for us to differentiate the single Event Z data point from the two periodicity data points. If these data points were unclear, then we could end up with incorrect data and thus incorrect dates.
4. Finally, it must also be assumed that the designers of the Giza stellar time line would have understood that the future pole shift date they were encoding into the time line (Event Z) would likely be rendered meaningless after that event had actually come to pass since the Earth would then have had its geodynamic and precessional properties altered by the event itself. In anticipation of this, the designers would likely have built into their stellar time line a means whereby the precessional properties from their time could still be retrieved from the time line because only by retrieving this data can we have the true values and work out the true future (and past) dates encoded into the time line.

This brings us now to two key questions:

1. How exactly did the ancient designers of this stellar time line mark the three data points on the line?
2. Did the ancient designers of Giza mark their stellar time line to predict the date of a future pole shift event; that is, does the stellar time line present the date of the most recent pole shift event (as indicated by the research of George Dodwell) as occurring circa 2345 BCE?

Dating Event Z: Finding the Three Data Points

A close analysis of the Giza monuments in relation to the stellar time line presents some intriguing features. As we learned earlier, the southeast corners of pyramids G1 and G3 sit right on the Giza stellar time line (the Lehner-Goedicke line), while the southeast corner of pyramid G2 does not, being set several meters from it. We *also* find that G1 and G3 are eight-sided monuments,[*27] whereas G2 presents only four sides. As such, we find that we have two quite distinct styles of pyramid; two eight-sided structures (G1 and G3) whose southeast corners connect with the time line and one four-sided structure (G2) whose southeast corner is set back from it. Since we require two data points to encode the periodicity of Event Z, then this may be why we are presented with two similar eight-sided structures, each of which connect directly with the time line (fig. 7.13). And since the date of Event Z will require only one marker, then this may be why we find just one four-sided structure that is set back from the time line. When we know the date for Event Z (i.e., the most recent pole shift event), then by simply adding or subtracting the periodicity count from this date, we can determine future and past dates for Event Z (i.e., past and future pole shift events).

What else might the designers have marked or encoded? How else might they have recorded their predictions for the dates of future calamities in order to ensure the survival of their civilization and, most important of all, how might they have drawn our attention to it?

The "Wow!" Signal

One of the most curious aspects of the Giza monuments arises when we draw a circle around the three outermost points of the Giza pyramid field: we find that the Sphinx ends up sitting right on the outside edge of this great circle (fig. 7.14, p. 154). The chances that such an occurrence could have come about as a result of simple happenstance are remote in the extreme and, as such, this suggests that the layout was wholly intentional and that the Sphinx is likely an integral and functional part of the Giza stellar clock.

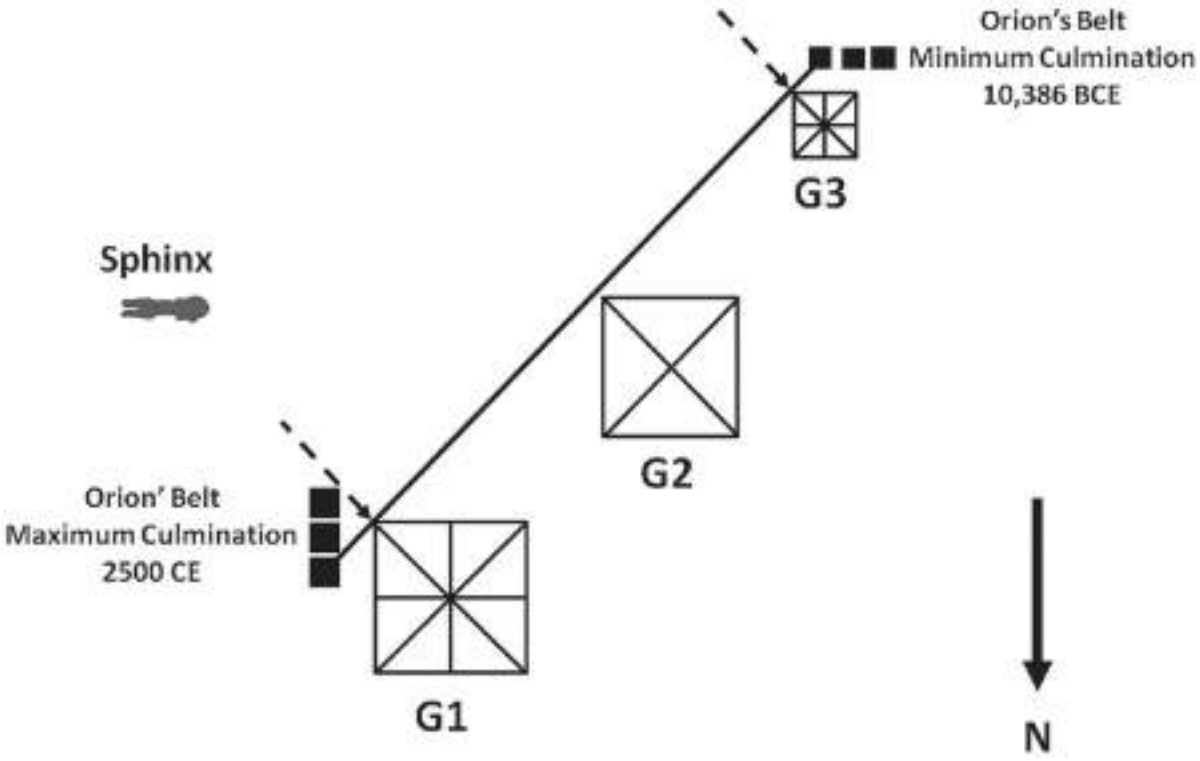

Figure 7.13. The southeast corners of pyramids G1 and G3 sit right on the stellar time line (indicated by the dashed arrows), whereas the southeast corner of G2 is set slightly back from this line. Note also that pyramids G1 and G3 are similar eight-sided structures, whereas G2 is a simple four-sided pyramid. The similarly styled and arranged G1 and G3 may encode the periodicity since this requires two similar data markers, while G2 may encode the date of the most recent pole shift event, which requires only one data marker.

It may also be that the slight change of G2's position on the plateau (it does not correspond perfectly to the relative position of its stellar counterpart, the belt star Al Nilam) was necessary in order to create a specific angle from the apex of this pyramid to connect with the Sphinx, thereby crossing over and intersecting the stellar time line at a very specific point/date along its length (fig. 7.15).

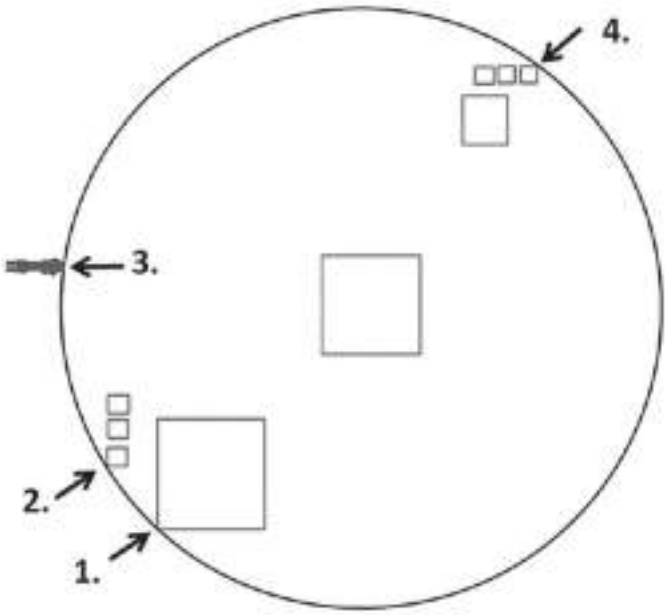

Figure 7.14. With a circle connecting the three outermost corners of the Giza pyramid field, we find that the Sphinx ends up sitting just outside the perimeter of this circle.

While this method of placing a data point on the time line seems intuitive and logical, there are, of course, any number of points that could be selected from pyramid G2 to this point at the rear of the Sphinx, all of which would intersect the stellar time line at slightly different points along its length, giving different potential data and thus different (wrong) dates for Event Z. What would be helpful here would be to have some means of corroboration, some kind of beacon that indicates to us that this pyramid-apex-to-Sphinx intersecting method is correct. This is to say that it would make sense for the designers to encode some meaningful or intelligent value (i.e., some kind of "wow!" signal)[*28] into the dating method they used in order that we might recognize this "intelligent signal" and know for certain that we had indeed found the correct method of intersecting and marking the time line at the correct point from the many other possibilities.

Remarkably, it seems that the builders did indeed build such a beacon into their stellar clock to show us the way forward. While I was discussing this intersecting method with my good friend and former coauthor Gary Osborn some years ago, he pointed out to me a quite breathtaking observation. Gary had noticed that the line from the apex of G2 to the Sphinx that I had presented him with intersected the stellar time line and divided it into a ratio of 1 to 1.314285714, the digits after the decimal point presenting, of course, the pi approximation (i.e., pi = 22/7 = 3.14285714)[*29] divided by 10. And so, with the pi digits found within this simple and intuitive division of the time line, we have a clear beacon of intelligent and deliberate design encoded into the intersection line from G2 apex to the Sphinx, our "wow!" signal, and meaningful confirmation that we have, indeed, found the correct method the ancient designers used to encode data into and mark their stellar time line at specific points—a line from the apex of G2 to the Sphinx that intersects the stellar time line precisely at a desired point/date.

It naturally follows, of course, that if a line from the G2 apex to the Sphinx is the method used to intersect the time line to provide the single data point and date of Event Z, then (assuming the rule of consistency) the other two main pyramids would likewise have been used to encode the two other data points (the two values that are needed to obtain the periodicity value), with intersecting lines from the apexes of G1 and G3, respectively, to the rear of the Sphinx, crossing the stellar time line and intersecting it at very specific points (fig. 7.15, p. 156).

If we then take the modern value of 12,886 years as the precessional half cycle and divide this number by 2.3142857 (to obtain the ratio split of 1 to 1.314), this returns the ratio of 5,568 (rounded) : 7,318 (fig. 7.16). This suggests then that the date for Event Z occurred some 5,568 years before the maximum culmination of Orion's Belt. Since we know that Orion's Belt is due to reach its maximum culmination circa 2500 CE, then 5,568 years *before* that culmination event takes us back to the year 3068 BCE (2500 CE − 5,568 years).

We can similarly determine the duration of the periodicity with this method. When we measure the distance between the two intersection points of G1 and G3, it returns a count value of 8,762 years (fig. 7.17).

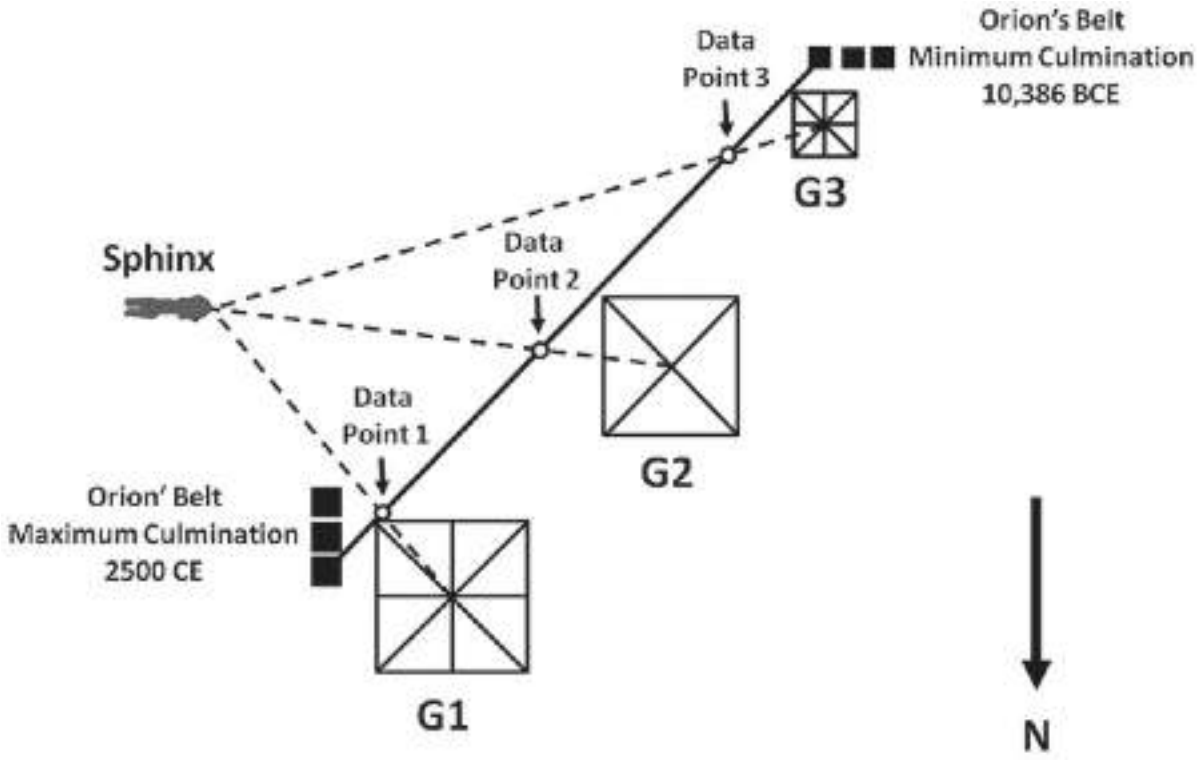

Figure 7.15. Lines from the apexes of the three Giza pyramids to the Sphinx intersect the stellar time line at three specific points. The three data points are differentiated from each other by the pyramid's styles. Since the periodicity requires two values, this would logically be encoded with the two pyramids G1 and G3 because these are pyramids of similar style (being eight-sided and touching the time line), whereas the single date for Event Z would logically be encoded with G2, this being the only four-sided (main) pyramid and the one that doesn't touch the time line.

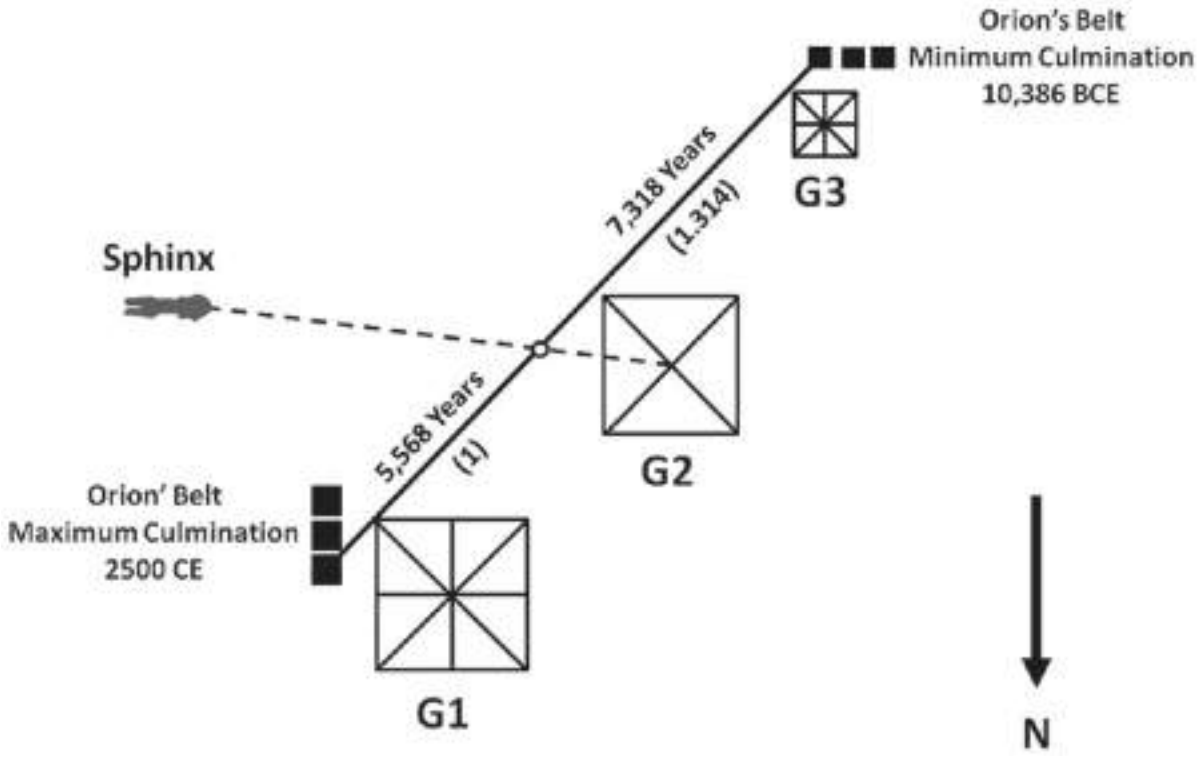

Figure 7.16. Using the time line ratio of 1 to 1.3142857 with the modern precessional half cycle of 12,886 years splits the stellar time line into the ratio of 5,568 : 7,318 years. This suggests that Event Z happened 5,568 years before the maximum culmination of Orion's Belt in 2500 CE, thereby giving us the Event Z date of circa 3068 BCE.

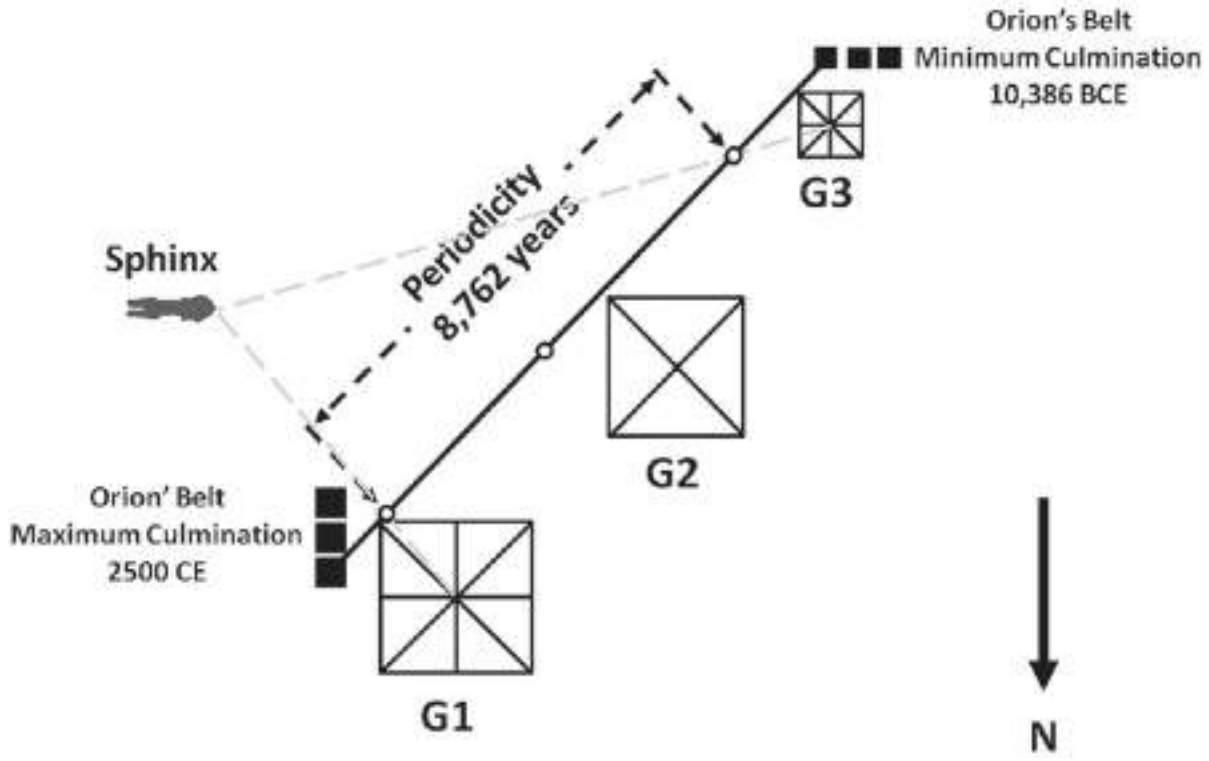

Figure 7.17. Based on our modern precessional half-cycle duration of 12,886 years, the periodicity count (the distance between G1 and G3 data points) returns a value of 8,762 years.

On the basis of our present precessional half cycle of 12,886 years, it seems then that Event Z occurred circa 3068 BCE and had a periodicity of 8,762 years, which means the next Event Z won't occur until circa 5694 CE (3068 BCE + 8,762 years' periodicity).

But wait: How can we know that this event is to occur 5,568 years before the maximum culmination of the belt stars and not 7,318 years before their minimum culmination?

Given that the last minimum culmination of the belt stars occurred circa 10,386 BCE (with respect to our present precessional half cycle of 12,886 years), then 7,318 years before this culmination gives us the date of circa 17,704 BCE (10,386 BCE − 7,318) as a second possible date for the last Event Z. So how can we know which of these two possible dates (ca. 3068 BCE or ca. 17,704 BCE) is the correct Event Z date?

Direction of Travel

The reader will recall that in our half-year solar time line example earlier in this chapter, it was explained that it was important to know the direction of travel of the sun in order to definitively determine the actual date of a particular marker placed on the solar time line. For instance, we learned that the July 17 date on the solar time line can only be this date when the direction of travel of the sun (when the alignment was made) is toward the winter solstice. If, however, the direction of travel of the sun was toward the summer solstice (when the alignment was made), then the very same point on the solar time line becomes May 17.

The very same dating issue arises with the Giza stellar time line. Unless we can determine the direction of travel of the Orion Belt stars at the time the three data points were created on the stellar time line, then we cannot know which of the two possible dates is the correct date for Event Z. If the belt stars were moving toward maximum culmination, then the G2 intersection date becomes circa 3068 BCE. If they were moving in the opposite direction, toward minimum culmination, then the G2 intersection date becomes, as stated above, circa 17,704 BCE.

It was also explained in the solar time line example that an additional symbol (or other unique marker of some kind) needed to be placed alongside either the summer or winter solstice markers in order to make known the direction of travel of the sun (recall figs. 7.9 and 7.10, pp. 147 and 148) at the time the alignment was made and thus the intended date. Again, the same principle applies with the Giza stellar time line. Some additional marker is required to tell us the direction of travel the belt stars were making when the three intersection data points were encoded onto the stellar time line. Were they moving toward maximum culmination or toward minimum culmination? One such additional marker presents a very obvious possibility.

Beside G1 (at the maximum culmination end of the Giza stellar time line), there is what Egyptologists call a cult pyramid (shown in fig. 7.18). This cult pyramid is considerably smaller than the other satellite pyramids and stands between the Great Pyramid and its three "Queens' Pyramids." Today, only the foundations of this small pyramid can be seen. There is no similar structure at the opposite end of the stellar time line beside the three satellite pyramids of G3. It may then be that this smallest pyramid functions as the additional marker needed to indicate to us that the direction of travel of the belt stars was toward the G1 satellite pyramids (toward maximum culmination). Had the direction of travel of the belt stars been toward their minimum culmination, then we would likely have found this small pyramid placed beside the G3 satellite pyramids to indicate this.

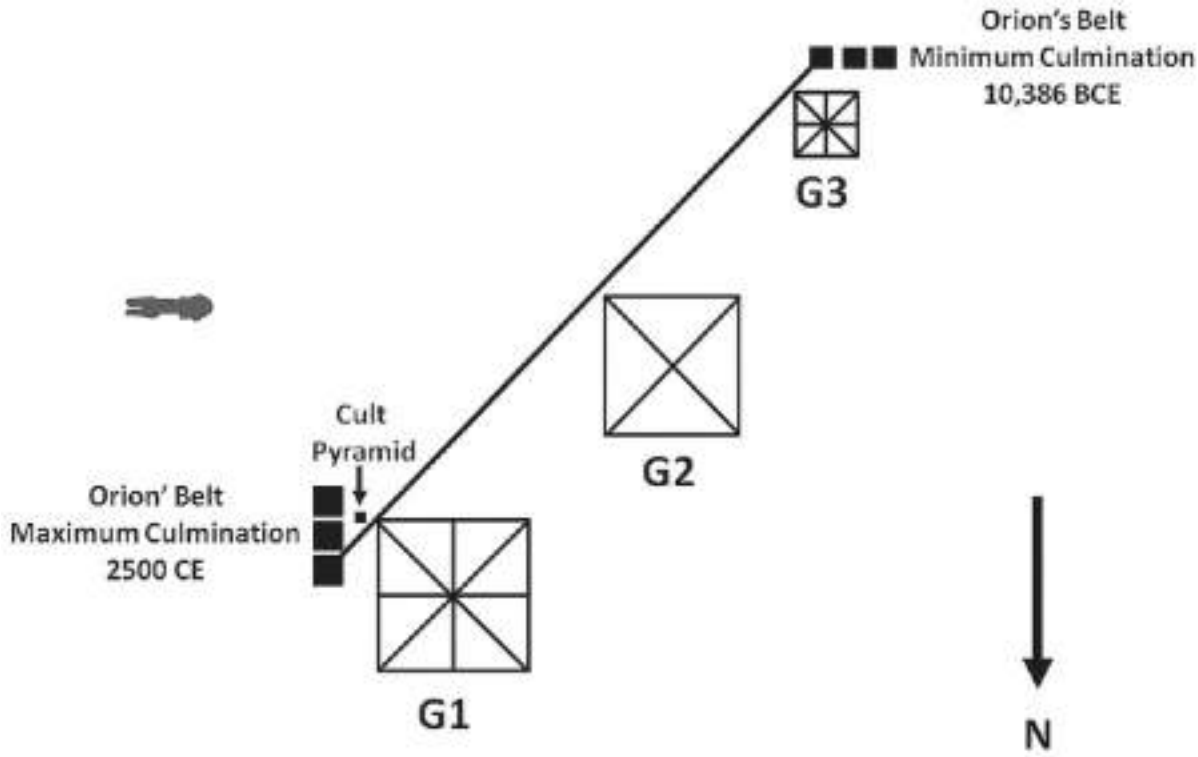

Figure 7.18. The placement of the so-called cult pyramid at the maximum culmination end of the Giza stellar time line may have been done to indicate that the direction of travel of Orion's Belt was toward this end of the time line when the time line was devised.

In summary, this small so-called cult pyramid right beside the three G1 satellite pyramids might have been placed at that location to serve as a marker to indicate to us that the direction of travel of the belt stars when the stellar time line was devised was toward their maximum culmination.

As such, we can then be reasonably sure that the intersection date is indeed circa 3068 BCE and not the 17,704 BCE alternative (a date that requires the belt stars to have been moving in the opposite direction, toward minimum culmination). In short, the monuments at Giza appear to indicate that the G2-Sphinx intersection date on the stellar time line occurred 5,568 years before maximum culmination and not 7,318 years before minimum culmination,

which means, as already mentioned, that Event Z, the last pole shift event, according to the Giza stellar time line was scheduled to have occurred circa 3068 BCE. But did it?

Time Slip

The reader will recall that the Australian astronomer George Dodwell calculated from various astronomical observations of ancient monuments around the world that the last pole shift event occurred circa 2345 BCE, a date that is some 723 years adrift from the Event Z date we find encoded in the Giza stellar time line. It seems clear that there is something amiss here. Are Dodwell's calculations wrong? Or did the ancient designers of the Giza stellar time line miscalculate the periodicity of Event Z by 723 years? The answer may, in fact, be neither of these but rather simply the result of something already mentioned at length earlier in this book: this 723 year discrepancy could simply be yet another manifestation of the Bauval-Trimble convergence problem. This is to say that our present rate of precession (12,886 years per half cycle) is likely not the same as it was prior to Dodwell's pole shift event of circa 2345 BCE. And if these precession rates were indeed different, then it means the results we find in our time line calculations above will be in error, including the date for Event Z. The only way we can correct this error and establish the true date for Event Z (the last pole shift event) is by knowing what the rate of precession (i.e., the half-cycle length) was *prior* to the most recent pole shift event and then calibrating this former precessional duration using our present precessional duration.

By way of analogy, imagine you and a work colleague are having a teleconference meeting tomorrow and that you both need to set your alarm clock to be sure you are awake and do not miss the meeting. You both agree the meeting should occur at 9:00 a.m. the following day. To ensure you don't miss your meeting, you both set your alarm clock to awaken you one hour before your meeting. Now imagine that the only clock you have is a novelty "decimal clock" that has only ten hours around its clock face (as opposed to twelve hours in your colleague's clock). What time would you need to set your decimal alarm clock to ensure that your alarm went off one hour before your meeting? This is essentially the same issue we have in calibrating the two stellar time lines, although, unlike the two alarm clocks, we presently only know the duration of one of the time lines (i.e., our present precessional half cycle of 12,886 years). We need to know *both* time line durations before we can calibrate the time lines and establish the true dates encoded within it.

In advancing this idea, we have to presume here that the ancient designers of the Giza stellar time line would have been aware that the precession rate (from *their* frame of reference) would likely be altered by the future pole shift (Event Z) whose date they were attempting to encode into their stellar time line. Were the ancient designers not to account for the likely precessional after-effects of Event Z, then it would be nearly impossible for any future civilization using the time line to determine the past Event Z date and equally impossible to predict any future Event Z date. In short, if the pre-shift rate of precession was altered after Event Z (which it almost certainly would have been), then the precession time line data will be flawed and any dates produced worthless.

However, if we further presume that the designers of Giza would have been aware of this potential problem, then it is reasonable to consider that they would have found a way of encoding into the stellar time line the absolute values of the duration of their own precessional half cycle, thereby giving future generations the necessary information needed to calibrate their own rate of precession with the former rate of precession used by the builders and, by doing so, the ability to determine an accurate Event Z date and also a more accurate periodicity count.

But how could the builders have encoded their precessional half-year duration into the Giza stellar time line in a way that future generations would be able to easily see and extract without the encoded data being corrupted and misread? A possible solution that the builders may have used comes from the pi ratio observation made by my *Giza Prophecy* coauthor Gary Osborn, the builders' "wow" signal encoded into the Giza stellar time line. He was not to know during that early research into this phenomenon just how crucial his observation was to become. He had discovered an important key, but, at that time, neither of us really knew which door it would open or precisely how this "pi key" should be used. Until now.

The Pi Ratio

For any future civilization to be able to extract the numerical value for the duration of the Earth's former (pre–pole shift) precessional half cycle would require that the designers somehow express and lock this key value into the

stellar time line in absolute terms. One means of achieving this is, of course, to use a ratio.

Imagine, for example, that you have a line of 20 inches in length and you divide that line into two equal halves. If you measure the line to the division point, you will, naturally, be presented with the value of 10 inches (half the line length). However, if you then measure this same line in centimeters, you will have a half length of 25.4 centimeters, which is a different numerical value from the 10-inch value (although the line length is the same). You obtain these different numerical values because you are using two different measurement scales. However, if you then divide one length of the line (say a half) into the other, you will always get the same value (1), and you will be able to obtain this value regardless of the measuring scale being used (e.g., 10 / 10 = 1 and 25.4 / 25.4 = 1).

Thus, by using ratios, we can always return the same numerical value regardless of the measurement scale being used. This is to say that if we wanted to encode the number 11 into a particular line using ratios, then we simply draw a line with an intersecting point that divides the line precisely midway along its length. Since each part of the line division is two equal halves, we thus have a ratio of 1 to 1 or 1:1 or simply 11. In this example, the 11 is not a numerical value, per se; all that is being said here is that ratios can be used in this manner to hardwire or lock in specific numerical digits that can then be retrieved and interpreted as meaningful within a specific context. And it doesn't matter the length of the line; if it is precisely split at the midway point, it will always return the 1:1 ratio (the digits 1 and 1 to form 11).

If we now extend this idea to the Giza stellar time line, we know that it is split into a ratio of 1 to 1.314 or 1:1.314 or simply 11314. Because of the very specific split in the Giza stellar time line (the "wow" signal observed by Osborn), we will always return the ratio of 1:1.314 regardless of whether the precession duration was subsequently altered (by a later pole shift event). As such, this specific and unalterable ratio value 1:1.314 that we find in the Giza stellar time line may have been used by the builders as a way to hardwire the half-stellar time line with the value of 11,314 years, which would be the half-precession cycle that existed before the most recent Event Z changed the rate of precession to give us our present half-precession cycle of 12,886 years, a precessional half-year difference of 1,572 years and 3,144 years for the full precessional year.

And so, we may then have found the importance of using the pi split in the Giza stellar time line, as it essentially encodes very specific and incorruptible numerical values into the line that can easily be noticed and retrieved. Accepting that this pi ratio (1:1.314) is to be regarded as an absolute value of 11,314 and that it does represent the Earth's former precessional half-cycle length, then how does this impact our modern time line of 12,886 years for the half cycle? How do we calibrate the two time lines to obtain the precise date for the past Event Z and, of course, to determine the calibrated date for the next event?

Calibrating the Giza Stellar Time Line

If we now divide the pre-shift precessional half-cycle value of 11,314 years by 2.3142857 (the Giza time line pi ratio) we find that the lead time, that is, the number of years from the maximum culmination of Orion's Belt (ca. 2500 CE) to the intersection point on the former (pre–pole shift) time line is now 4,888 years (as opposed to the former value of 5,568 years), with a periodicity count now of 7,693 years (as opposed to 8,762 years). If we now calibrate the two time lines (fig. 7.19, next page), we find that the calibrated Event Z date is given as:

circa 2500 CE − 4,888 years = circa 2388 BCE

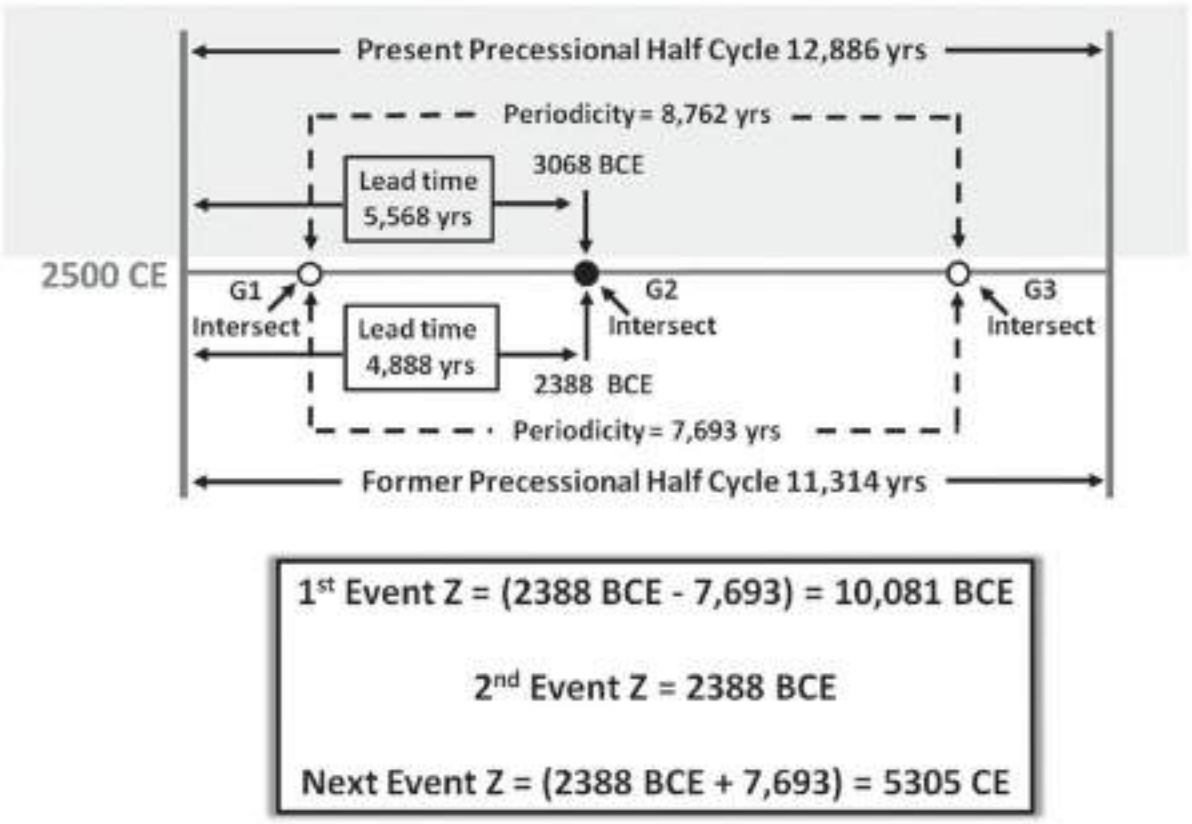

Figure 7.19. The calibrated Giza stellar time line shows that Event Z occurred circa 2388 BCE and that its periodicity is actually 7,693 years, (not the 8,762 years our present precessional duration produces).

This calibrated Event Z date of circa 2388 BCE is now within just 43 years[*30] of Dodwell's 2345 BCE date for the last pole shift event, an accuracy of over 99.8 percent. What is also important here is that the periodicity value given is now considerably lower, at 7,693 years. This is the periodicity value the ancient designers would have calculated. It is an absolute value in solar years calculated during the Earth's former precessional half cycle of 11,314 years and, as such, should remain constant.

As noted earlier, Halley's comet returns to our skies every 75 years. This periodicity for Halley's comet will remain the same regardless of any alterations to the Earth's precessional cycle because the periodicity of this comet is entirely external and independent of anything occurring to the Earth. And so too is the periodicity of Event Z; it will be fixed not at the 8,762 year periodicity given by our present precessional duration but at the 7,693 years of the Earth's former precessional duration, and it should keep this periodicity regardless of any future changes to the Earth's precessional rate.

With this information, we can now determine the date of the first pole shift event (and thus the date when the pyramids would likely have been built) that the calibrated time line gives as:

circa 2388 BCE 7,693 years (periodicity) = circa 10,081 BCE.

Similarly, the *next* Event Z date can be calculated as:

circa 2388 BCE + 7,693 years (periodicity) = circa 5305 CE.

IS GIZA TWELVE THOUSAND YEARS OLD?

The age of the Great Pyramid (and its contemporaries) is arguably one of the most hotly contested aspects of the Giza monuments, even among some mainstream Egyptologists, who, by and large, insist that they were all built circa 4,500 years ago, give or take a few hundred years. However, with the age of the Sphinx being pushed many thousands of years back in time (as a result of the research of the rebel Egyptologist, the late John Anthony West, along with the evidence presented by geologist Robert Schoch of Boston University), this has brought many to also question the age of the Great Pyramid itself, along with the other contemporary Old Kingdom pyramids in Egypt.

The stock response by Egyptologists to claims of a much greater antiquity for these monuments is probably best epitomized by Mark Lehner, who famously asked, "Show me a single potsherd" of an older civilization with similar capabilities to those of the early dynastic Egyptians. Lehner's comment was made in the early 1990s during a debate with Schoch and, unfortunately, long before the 12,000-year-old megalithic site of Gobekli Tepe had been excavated by the German archaeologist, the late Klaus Schmidt, a site that clearly demonstrates that mankind's ability to construct complex megalithic architecture comparable to that at Giza had been achieved many thousands of years earlier than had previously been thought possible.

It may be, however, that Lehner was actually asking the wrong question. Instead of asking "Show me a single potsherd" of this purported older Egyptian civilization that built the pyramids, Lehner may have been better to consider the possibility that it is not the older civilization of ancient Egypt that has been lost but rather that it is a more *recent* Egyptian society that is lost to history. This is to say that it is a curious and documented fact that we have considerably more evidence of and know more about the preceding Old Kingdom period than we do, for example, of the more recent First Intermediate Period (FIP) of the ancient Egyptian civilization. You might ask why should this matter?

The periods in ancient Egypt we call the Old Kingdom and Middle Kingdom were separated from each other by a transition period that Egyptologists, as stated above, refer to as the First Intermediate Period. This transition period in ancient Egyptian history is often described by Egyptologists as a "dark age" since (comparatively) little is known about this time due to there being very little by way of monumental architecture or documentary records having survived from this period. Orthodox Egyptology believes that this dark age lasted around 150 years, from circa 2181 BCE to 2055 BCE[6] and that it came to a close with the rise of the Twelfth Dynasty. The FIP is typically defined by Egyptology as a time when chaos existed all across Egypt, when the central authority of the pharaoh had utterly collapsed, resulting in numerous local rulers assuming kingship of the various nomes of Egypt for themselves. This chaotic period is described in three Middle Kingdom texts: *The Admonitions of Ipuwer, The Prophecy of Neferti*, and *The Instructions for Merikare.*

However, not everyone agrees that the FIP was a time of chaos at all.

> Our perceptions of the First Intermediate Period are heavily colored by later literary texts such as the Admonitions of Ipuwer and the Instructions for Merykare. Almost half a century ago, Gun Björkman showed that the Instructions for Merykare did not match the milieu in which it was set. Stephen Seidlmayer has shown that there is an increase in wealth at the end of the Old Kingdom and into the First Intermediate Period, which does not fit with the narrative of the Middle Kingdom narratives. . . .
>
> Since there is no economic decline in the First Intermediate Period, there is no economic collapse at the end of the Old Kingdom. It is merely a figment of the imagination of the Middle Kingdom propaganda. Without the picture of chaos derived from the Middle Kingdom literary sources there is no collapse at all. This is not to question the existence of a transition between the time periods since a number of differences between the Old Kingdom and the First Intermediate Period indicate that they are indeed distinct eras. Indication of differences include such things as the presence of monumental architecture in the Old Kingdom and its absence in the First Intermediate Period, or multiple concurrent rulers. Instead of trying to explain why the Old Kingdom collapsed, we need to explain why the First Intermediate Period was more prosperous.[7]

Here then we find something of a paradox. The supposed chaos of the FIP seems to have been based entirely on three later Middle Kingdom texts that speak of an earlier time of chaos across the land, but, paradoxically, it

seems that this chaotic period could not have belonged to the FIP identified by Egyptologists, which appears, actually, to have been a time of prosperity in the country, albeit with a quite different society from that of the Old Kingdom. Thus, if we accept that these three texts depicting this former chaotic period are indeed speaking of true events (as opposed to being but "a figment of the imagination of the Middle Kingdom"), then, if not during the FIP, when exactly did the chaos described in these texts actually take place? A brief look at another of these Middle Kingdom texts, *The Prophecy of Neferti*, may offer a clue.

> The description of the land in chaos and turmoil shows clear primeval overtones. Several phrases can be understood as referring to a time before the creation of the world (*the Sun is obscured and gives no light for the man may see . . . Ra should create again . . . what is done will be what is undone*). The vision of Neferty thus seems to present a metaphor in which the time of trouble is related to a time in which creation has reverted into an original chaos and so the process of creation needs to start again.[8] (italics in original)

The process of creation needing to start again is exactly the reason the Coptic-Egyptian oral tradition gives us for the construction of the first pyramids, so that the kingdom might be revived or could be created again after the coming deluge ("*Ra should create again . . . what is done will be what is undone*"). *The Prophecy of Neferti* (and the other texts from this period) seems to hark back to a time of chaos that prevailed in Egypt at some time after the Old Kingdom (and the construction of the pyramids) but before the FIP—in other words, a *lost period* of ancient Egyptian history and thus lost time. This then raises the question: What if what we're actually looking at with our present understanding of Egyptian history is, in fact, a much compacted or truncated history, a much compressed chronology? What if there is a lost period (lost time) between the Old Kingdom and the FIP, and what if this lost period was many, many thousands of years in duration? How might that affect the chronology of the Old Kingdom pyramids?[*31]

If this were, indeed, the case, then this much longer, intervening lost period between the Old Kingdom and the FIP would have the effect of pushing the chronology of the Old Kingdom (and everything that came before this period), lock, stock, and barrel, back in absolute time by, potentially, thousands of years, and as such, this may help to explain the findings of Schoch with respect to the anomalous weathering of the Sphinx and its enclosure, which he argues could only have occurred as a result of the much higher rainfall that prevailed in ancient Egypt many thousands of years before circa 2550 BCE, when Egyptologists believe the Sphinx was crafted. This is to say that we have not so much lost the ancient civilization that built the pyramids and the Sphinx but rather that we have lost a much more *recent* incarnation of the Egyptian civilization that existed between the Old Kingdom and the FIP. It seems almost as though after this period of chaos, the entire land of Egypt had gone into a long, deep sleep and that the archaeological evidence we have from the FIP actually represents the reawakening, providing us with the first historical evidence of the Egyptian civilization flourishing again long after the original civilization had been decimated, perhaps many thousands of years earlier.

By way of analogy, it's a bit like having, say, a hundred books on a bookshelf sitting between two bookends, and, unknowingly, someone comes along and removes a number of books from the middle of the shelf. Having removed those books, the person then pushes the two bookends together again, closing the gap between the remaining books, thereby presenting a continuous (though shorter) line of books. A chunk of knowledge has been lost from the shelf, but we don't even realize it's been lost because both bookends remain; we can see the beginning and the end, and we assume that what we have is a continuous, unbroken line, that nothing has been lost.

In short, it is possible that a more recent Egyptian society has been erased from our history because, by compacting the time line between the Old Kingdom and the Middle Kingdom to a mere 150 years (which included the FIP), Egyptology has effectively closed the chronological gap by pulling the Old Kingdom pyramid-building age forward in absolute time, perhaps by many thousands of years, to now sit but a mere 150 years from the start of the Middle Kingdom period. In so doing, this chaotic period of unknown duration—a time that does not seem to belong to the Old Kingdom or the FIP—then becomes erased and becomes mere legend; we do not know that this lost legendary period ever truly existed because we have pulled the bookends of the Egyptian civilization together, closing the chronological gap.

Radiocarbon Dating

Surely, what is then required is a means by which we can measure the ancient Egyptian chronology scientifically in order to obtain absolute date-reference points. In this regard, two radiocarbon dating studies of the Old Kingdom pyramids were conducted in the 1980s and 1990s, and their findings roughly concur with the orthodox age of the structures of around 4,500 years (within a couple of hundred years or so). More recently, in December 2020, it was announced that a small piece of cedar wood that had been discovered inside the sealed southern shaft of the Queen's Chamber by British engineer Waynman Dixon in 1872, and which had subsequently become lost, was rediscovered in the archives of Aberdeen University in Scotland. A sample of the wood was radiocarbon-dated and its calibrated age found to be between 3341 and 3094 BCE, some 500 to 800 years before the time of Khufu.

This age discrepancy is typically explained away by Egyptologists as being the result of the ancient Egyptian builders recycling wood that had been cut down many centuries before, an issue known as the "old wood problem." On the face of it, one might consider that all of this conclusively settles the dating issue. However, the science of radiocarbon dating, while sound in theory, seems not to be without its problems and limitations.

> Since 1947, scientists have reckoned the ages of many old objects by measuring the amounts of radioactive carbon they contain. New research shows, however, that some estimates based on carbon may have erred by thousands of years. . . . The group theorizes that large errors in carbon dating result from fluctuations in the amount of carbon 14 in the air. Changes in the Earth's magnetic field would change the deflection of cosmic-ray particles streaming toward the Earth from the Sun. Carbon 14 is thought to be mainly a product of bombardment of the atmosphere by cosmic rays, so cosmic ray intensity would affect the amount of carbon 14 in the environment at any given time.[9]

In an effort to resolve the issue of these cosmic ray fluctuations in the Earth's past, scientists have developed techniques such as ice-core analysis and dendrochronology (tree-ring dating) to try and smooth out these dating errors, generating a whole series of "calibrating curves" that allow them, in theory, to determine more accurately the age of a particular organic specimen. There are many of these calibration curves, and each depends on a number of additional factors and assumptions such as a particular specimen being from the Northern or Southern Hemisphere, whether it is land-based or water-based, and its proximity to nuclear testing during the 1950s. As time progresses, however, scientists are learning of additional factors that need to be taken into account when determining the radiocarbon calibrating curve and thus the true age of organic material.

Recently, for example, scientists have discovered that the proximity of the Earth to the sun's electromagnetic field can slow down the decay rate of radioactive isotopes, a finding that may have profound implications for the science of radiocarbon dating since it had always been a fundamental cornerstone of radiometric dating techniques that the decay rates of radioactive isotopes were constant and immutable. And it raises the further question: if the pyramid itself can indeed focus electromagnetic fields into its internal chambers as some scientists now claim (see chapter 6), then we must surely ponder just how such a property might also affect the decay rate of radioactive carbon within any organic material stored therein.

Other problematic issues, such as contamination of a specimen, are not so easily resolved. If, for example, a small amount of modern ash had ever come into contact with the cedar wood sample found in the Great Pyramid, then this could result in an artificially young date being returned for this wood. A 2011 article from the *New York Times* serves to highlight this particular problem. "Until now bones from several Neanderthal sites have been dated to as young as 29,000 years ago. . . . But researchers report that tests using an improved method of radiocarbon dating, based on a new way to exclude contaminants, show that most, and maybe all, Neanderthal bones in Europe are or will be found to be at least 39,000 years old."[10]

That contaminents can skew radiocarbon dates by as much as 10,000 years is no small issue, and especially so given that we simply do not know the full provenance or chain of custody of the small piece of cedar found in the Queen's Chamber shaft. Given that modern ash is one of the main culprits for skewing radiocarbon dates and given that this piece of wood was undoubtedly handled by numerous people and then stored in a tobacco tin (of all things) for over seventy years, can we really be certain its dating of between 3341 and 3094 BCE is accurate, or might its true date have been skewed by thousands of years in the same way the Neanderthal bones were found to have been?

As each review of the radiocarbon dating technique is published, we find that scientists are learning of ever

more factors that need to be taken into account in order to produce a more accurate date for a particular artifact. And with each new calibration curve that is produced by these reviews, we find that the mean dates of ancient artifacts just seem to be getting pushed ever farther back in time, the old wood becoming ever older and farther away from the believed time of Khufu. We can only ponder here just how long it might be before scientists have finally perfected the radiocarbon dating technique and, of course, just how much older organic artifacts might then be.

In short, radiocarbon dating, though theoretically sound, is an imperfect science that is known to produce flawed results, even after calibration. This may be why radiocarbon dating results are usually cited in academic papers only when the date agrees with other archaeological and historical findings and perhaps also why Zahi Hawass described radiocarbon dating as "useless." In the *Egyptian Independent* online newspaper, Valentina Cattane wrote, "Hawass remains categorical in his rejection of the technique: 'Not even in five thousand years could carbon dating help archeology. We can use other kinds of methods like geoarcheology, which is very important, or DNA, or laser scanning, but carbon dating is useless. This science will never develop. In archeology, we consider carbon dating results imaginary.'"[11]

Earth Changes

Is it merely coincidental that 12,000 or so years ago, around 10,081 BCE, our planet was in the grip of major sea-level rises as the great ice sheets of Europe and North America were in meltdown (fig. 7.20)? Even today, scientists struggle to identify the underlying cause of this (relatively) rapid warming of the planet that caused the great ice sheets to collapse and disappear.

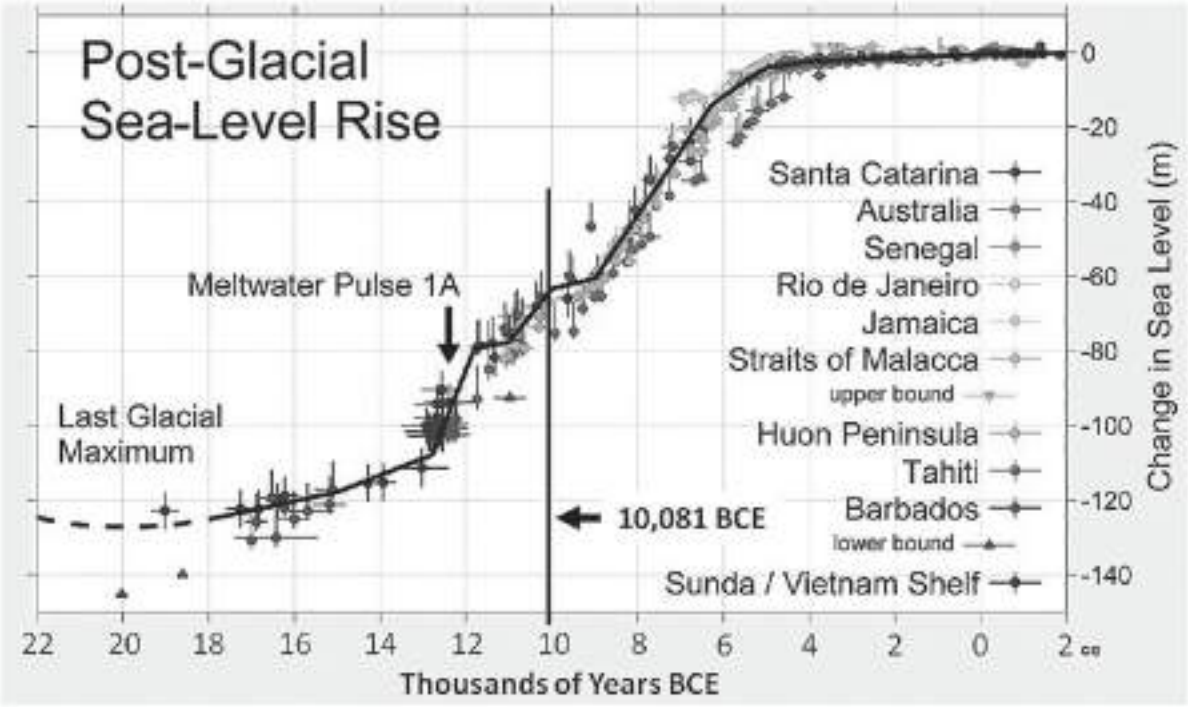

Figure 7.20. The midpoint of the Earth's post–Ice Age sea-level rise occurs circa 10,081 BCE, the date of the first pole shift event and the time when the Giza monuments would likely have been built.

If the year 10,081 BCE, cited in figure 7.20, was the time when King Sūrīd's astronomer-priests observed that the stars had wandered from their normal course across the heavens (when a pole shift event was underway), then is it mere coincidence that this occurred almost midway through the Younger Dryas cooling period (10,900 BCE to 9700 BCE), when the Earth gradually became warmer again, resulting in a further spike in global sea level? Is it

perhaps the case that as the oceans gradually rose over the preceding thousands of years, a tipping point was reached circa 10,081 BCE that resulted in the Earth becoming unstable and flipping over, Dzhanibekov style? And could this flip have then shifted the Earth's former great ice sheets into even warmer latitudes, thereby accelerating their meltdown and causing further rapid rises in global sea levels, just as Sūrīd's astronomer-priests had predicted?

8

A New Landscape

For centuries, mainstream Egyptologists have insisted that the giant pyramids of the early Egyptian dynasties were built as the eternal tomb of just one man, the pharaoh. The function of each pyramid, it seems, according to their interpretation of the ancient Egyptian hieroglyphics, was to serve as some kind of revivification machine that would take two aspects of the king's soul (his *ka* and his *ba*) and, through some mystical alchemy, convert them into *akh*, a light-being that could ascend to the heavenly realm, the afterlife, to intercede with the gods to ensure the continued well-being of Egypt and its people. In the minds of the ancient Egyptians, we are told, the role of the king in death was just as important as his role was in life, if not more so.

But we have to ask: Where did such religious ideas come from? How did they form and evolve? And why were giant pyramids suddenly required to help make this journey to the heavenly realm possible when, for most of Egypt's long history, its kings built no pyramid afterlife machines, each being buried instead in a simple mastaba tomb or in an underground tomb such as those we find today in the Valley of the Kings? Indeed, there are numerous reasons why pyramids would simply *not* have been the most desirable place for the burial of an ancient Egyptian king,[*32] at least not in the conventional sense so embraced by Egyptologists. Could it be, then, that the early, giant pyramids of Egypt were conceived and built to serve some alternative purpose, to fulfill some other important need for the ancient Egyptian people?

It is the contention of this book that this was, indeed, the case. But this alternative purpose is not one imagined or first proposed by the author of this work. Rather it is one that has come down to us from prehistory, from the ancient Egyptians themselves, whose descendants, the Coptic-Egyptians, kept alive their history and cultural traditions, passing them down in oral form, generation after generation, possibly for thousands of years. In time, this oral history would finally be committed to the written form by a number of Arabic scholars in the early Middle Ages.

This Coptic-Egyptian narrative speaks of a time when the stars in the heavens lost their way, wandering from their usual course across the night sky. King Sūrīd (Suphis/Khufu) asked his astronomer-priests what this portent in the heavens would mean and was told by them that the kingdom would be destroyed by a great deluge some three hundred years in the future. Upon hearing this, Sūrīd embarked on the construction of sixteen great stone pyramids,[*33] immovable man-made mountains, into which he would place everything the kingdom would require to ensure its revivification after the coming flood had abated. This would also include the construction of a great chamber within the Great Pyramid for twenty-seven of his ancestor kings and queens, without which the hoped for revivification of the kingdom simply could never occur because if their mummified remains were destroyed in the coming deluge, then they could no longer intercede with and seek the benevolence of the gods to bring about the rebirth of the kingdom.

It was crucial, then, that the ancestors were placed in a safe, inaccessible haven as far from the floodwaters as possible, high up in the Great Pyramid's superstructure—the Big Void. It is thus easy to understand how those from ancient times believed the pyramids were tombs of the pharaohs while at the same time believing that the Great Pyramid was also some kind of revivification machine. The Great Pyramid was *all* of these things, although not in the conventional sense; the original function of these pyramids was not so much to serve as the tomb of the king as it was to act as the womb of the kingdom. In later dynasties, as religious ideas evolved around the pyramids, it would not be surprising that the king's own rebirth and afterlife would gradually become inextricably linked with these monuments because there would have been a long memory that they were the means through which death could be defied and rebirth assured. If the pyramids once brought about the rebirth of the kingdom, then they could now serve to bring about the rebirth of the king.

It is, however, unsurprising that these Arabic translations of the ancient Coptic-Egyptian accounts are dismissed by modern scholars and other skeptics as nothing more than myth and legend. After all, according to most modern scientists, there is simply no evidence for a global deluge nor, they believe, is it possible for the Earth to tumble over on its axis—two central claims of the Coptic-Egyptian oral tradition.

And yet, for all the modern skeptics' haughty insistence and scientific claims to the contrary, the ancient testimonies speaking of these calamitous times in remote antiquity continue to persist, leaving the nagging questions forever fermenting in our minds, taunting us: What if this ancient Coptic-Egyptian legend is actually true? What if this calamity, as many other ancient writings also tell us, is indeed part of a great convulsion of the Earth that occurs at regular intervals, over long periods of time, wiping out civilizations and leaving us to begin again as children, with little knowledge of our past?

This book has presented much evidence from ancient sources from all over the world that speak of a time when the Earth tumbled over on its axis. If there were perhaps only a handful of such accounts, then we might easily be able to say, with some confidence, that such stories *were* but mere myth. However, to stand in the presence of so many accounts from ancient times that describe a similar pole shift event surely suggests that there may very well be much more truth to this particular legend than modern science is ever prepared to admit or accept. Did all these ancient witnesses simply imagine the same tumultuous and traumatic event?

We find scientists such as Ed Krupp insisting that in order for the main Giza pyramids to strictly correlate with the Orion Belt stars (as per the theory of Robert Bauval), then Giza needs to be turned upside down. What Krupp is effectively arguing here is that if Bauval's pyramid-star correlation has a basis in fact, then the Giza monuments must have been built when the Earth was once upside down (and that it has since returned to its original upright orientation). Of course, the great irony here with Krupp's throwaway remark is that the Earth probably *was* in just such a condition and that this is precisely why we find the Giza monuments so peculiarly aligned today, having been built after an initial pole-shift event (when the pyramids would have aligned with the belt stars in the Southern Hemisphere) and then having subsequently become misaligned (specifically, turned upside down after a second, more recent, pole shift event).

These pole shift events explain a number of other peculiar anomalies we find within the monuments at Giza and elsewhere in Egypt, such as the misalignment of the Sphinx and the niche in the Queen's Chamber. These two features are misaligned by around the same amount but in two different directions, suggesting that the Sphinx was built before the first-pole shift event when Giza was located close to the equator in the Northern Hemisphere, while the niche was built after this event when Giza was shifted to the Southern Hemisphere. With the pre-shift Sphinx having faced the dawn on the eastern horizon, post-shift it would find the dawn at its rear on the western horizon (perhaps explaining the opposite-facing Sphinx image on the Dream Stele). This new sunrise on the western horizon may also explain why the pyramids were constructed on the west bank of the Nile and the so-called sarcophagus placed in the western end of the King's Chamber; the western horizon would now be regarded as the place of rebirth. This new dawn may further explain why many older burial customs had the head of the deceased facing the western horizon; it perhaps wasn't so much that the burial customs of these ancient people had changed but, rather, that the place where the sun rose had changed.

The most telling physical features of the Great Pyramid's internal architecture that strongly speak to us of an ancient pole shift event are, of course, the four sets of so-called star shafts that seem to point to the stars in motion. In their attempts to date the Giza monuments using archaeoastronomy, Virginia Trimble and Robert Bauval unwittingly found perhaps another indicator of an ancient pole shift event, albeit the most recent event. The two researchers found two different dates encoded into the pyramid's architecture. Trimble's star altitude method gave the date circa 2550 BCE, while Bauval's belt pivot technique returned a date of circa 10,500 BCE. If both methods

used by these researchers were originally deployed simultaneously by the ancient designers (and there are good reasons to believe that this *would* have been the case), then there is no reason why we should find a discrepancy of around eight thousand years (equal to around 33° of precessional change) between the two dates. However, that these two researchers failed to find a common convergence date for the pyramid's construction may have little to do with any failure of the specific techniques they each employed in their research but rather has more to do with an ancient pole shift event driving the observed alignments and findings apart. This second, most recent pole shift event would undoubtedly have altered aspects of the Earth's geodynamics, thereby erasing some of the properties we find encoded into the Giza monuments and thus making a convergence of the Bauval-Trimble dates impossible to find in modern star-mapping software since the pre-shift convergence would, almost certainly, no longer exist.

Finally, we have the curious astronomical ceiling of Senemut (the chief architect of Queen Hatshepsut during the Eighteenth Dynasty), which presents several features that can only be made sense of from the perspective of an upturned Earth. North is south and south is north and the stars and planets seem to be depicted moving in the opposite directions.

And just as stories of ancient pole shifts come to us from every corner of the Earth, so too do stories of an ancient, global flood that the Coptic-Egyptian legend also predicted. Scientists typically dismiss these as merely exaggerated tales of localized flooding events from these ancient people because, according to the science, there is no evidence of any cataclysmic global event of the type described in these ancient texts, including the Bible, ever having occurred.

But once again, the evidence—documentary and physical—appears to be at odds with the scientific position. The ancient Egyptians tell us that they anticipated a great flood that would drown the entire country. Indeed, their very creation myths can be interpreted as a catastrophic flood event whereby the pyramids seemingly arose from the duat (a watery realm) to give rebirth to the world. Even the hieroglyphic for the pyramid is shown as arising out of a body of water, the rectangular sign at its base that has been interpreted in the pyramid texts as meaning the duat. This pyramid emerging from water iconography is confirmed with the South Pyramid at Saqqara, where we see the base of the pyramid is surrounded by a wavy wall, the ancient Egyptian symbol for water.

While science generally dismisses notions of a global deluge, it cannot deny that sea levels at the end of the last ice age were around four hundred feet lower than they are today. Something clearly happened to cause the great ice sheets to melt away and the sea levels to rise. Scientists insist, however, that the rise in sea levels occurred very slowly over many thousands of years, which is mostly true. However, this slow, gradual rise in sea levels wasn't always so because, on occasion, it was punctuated by instances such as Meltwater Pulse 1A, circa 12,500 BCE, when sea levels rose instantly and dramatically by several feet all over the world. This rise doesn't sound like very much, but to the mostly coastal communities of the Earth at that time, an instant rise in sea levels, even of just a few feet or so, would have been catastrophic, and its effects would have been burned deep into humanity's collective memory, with the calamitous consequences passed on, generation after generation, in the oral tradition by different cultures all over the world.

But what could have caused the sea levels to rise in the first place when it is known that they had been stable for hundreds of thousands of years? What occurred toward the end of the last ice age, circa 12,500 BCE, to have caused this great upheaval? It is almost impossible to know with any degree of certainty. However, recent discoveries tell us that around this time (the exact date is presently uncertain), a massive meteor struck northwest Greenland, releasing the energy of a seven-hundred-megaton nuclear explosion. This event alone would have caused significant global upheavals but was likely only the catalyst for a whole chain of subsequent and interlinked catastrophic events.

If we imagine that this meteor impact occurred around 17,000 BCE and that it possessed sufficient force to alter the Earth's axial tilt by several degrees, this may have resulted in the North American and European ice sheets being sufficiently shifted into warmer latitudes for them to go into a long, slow meltdown. Eventually, the slowly rising seas brought the Earth's irregular-shaped geoid to a tipping point whereby, circa 10,081 BCE, the planet became unstable and fully tumbled over, Dzhanibekov style, causing the stars and other celestial objects to lose their normal passage across the heavens—perhaps the very event Sūrīd's astronomer-priests had observed. It may be no coincidence that the Giza stellar time line calculations present the midpoint date (perhaps a tipping point) in the Earth's sea-level rise (as noted in fig. 7.20, p. 173).

With this inversion of the planet, it seems that Giza was relocated from around 3° north of the equator to around 30° south (it would be relocated back to the Northern Hemisphere in a subsequent pole shift event some 7,693 years later, circa 2388 BCE). Giza seems also to have been relocated relatively unscathed, perhaps as a result

of being in close proximity to one of the pivot points of the inversion. At the same time, the great ice sheets in North America and Europe would have been relocated into even warmer latitudes, thereby causing them to go into further rapid and irreversible meltdown and storing up trouble for the planet in the centuries and millennia to come.

Whatever the exact chain of events and their timings, what the Coptic-Egyptian texts tell us, unequivocally, is that the Egyptian king at that time, Sūrīd, decided he would build great stone pyramids as watertight, impregnable storehouses to try and mitigate the worst effects of the coming deluge. This would have meant storing in each of the pyramids all manner of items: tools, seeds, weapons, papyrus scrolls, pottery, and so on. However, as previously stated, the single most vital aspect of Sūrīd's plan was the placement in the Hall of the Ancestors the mummified bodies of his forefathers, for only they could occasion the revivification of the kingdom.

But if this was the true purpose of these monuments, how did this truth come to be so lost? Why is this picture of our ancient past so blurred and confused? There are a number of factors that contributed to this.

First of all, there were the writings of Herodotus, who tells us that Khufu built the pyramid as his tomb (although Diodorus Siculus tells us that Khufu was not buried there).

Second were the social attitudes and ethnocentric biases of the first Europeans to study these monuments in the early eighteenth and nineteenth centuries, which led them to assume that the smaller, unfinished chamber within the Great Pyramid must have been for Khufu's queen while the larger chamber (with its stone sarcophagus) must have belonged to the king (such notions have since been shown to be utter bunk). In the mindset of the Europeans of this period, "big" = "king" and "small" = "queen." As such, it was likewise assumed by these early pyramid explorers that the small pyramids were for the king's queens, with the giant pyramid being the domain of the king.

In seeing just one sarcophagus in the so-called burial chamber, these early explorers also assumed, not unsurprisingly, that the pyramid was built as the burial place for just one king. These early explorers were unaware that the ancient Egyptians had several different names for large stone boxes because each of them served a different purpose, and they also did not understand that the granite container they believed to be the king's sarcophagus was not, in fact, a sarcophagus for human burial at all but likely served a ritual function related to the revivification, not of the king, but of the Earth. This explains why, in 1818, the Italian pyramid explorer Giovanni Belzoni, upon removing the lid from the granite sarcophagus in the second pyramid at Giza, was disappointed (and not a little puzzled) to discover that it contained nothing more than Egyptian earth and stones. This discovery by Belzoni perhaps explains also why the ancient Egyptians of later dynasties made small, ceremonial replicas of this earth-filled sarcophagus, filling these small stone and wooden boxes also with earth and some grain, then burying them in a small hole in the ground and finally placing a large rock (symbolizing the pyramid) on top.[*34]

We can thus begin to see how the idea of the pyramid as the tomb of just one pharaoh became embedded in the mindsets of the early pyramid explorers. These attitudes were compounded by misinterpretation and incomplete readings of the available evidence. However, to be fair to the Egyptologists, their task in making sense of all of this wasn't made any easier when certain unscrupulous individuals manufactured and placed false evidence into the historical puzzle.

In 1837, the British antiquarian and pyramid explorer Colonel Richard William Howard Vyse blasted his way into a series of four hitherto unknown and completely sealed chambers within the Great Pyramid. In these chambers, Vyse claimed to have found Khufu's name (and *only* this king's name) crudely painted onto several wall and roof blocks. Vyse's discovery is held up by Egyptology, even today, as conclusive proof of Khufu's hand in building the Great Pyramid. But more than that, it is seen as proof that the pyramid was built as Khufu's *tomb* and only Khufu's tomb.

From a personal perspective, there is little doubt in this author's mind that most of the painted marks, including all of the royal cartouches, that Vyse claimed to have discovered on the walls of these chambers will, upon any future scientific scrutiny, be found to be fraudulent. A close analysis of Vyse's claims[*35] reveals many serious discrepancies and, as such, places sufficient doubt on his claimed discovery as to render it unreliable and thus inadmissible as evidence. But, to a large extent, the damage has already been done. The corrupting effect of Vyse's alleged discovery helped to solidify the pyramid-as-tomb-ofKhufu narrative in the minds of Egyptologists. This false evidence completely stymied their critical thinking, and they looked no further.

The result of this closed thinking meant that the Coptic-Egyptian texts that speak to us of a completely different narrative for the construction of these monuments were largely ignored and set aside by Egyptology, where they languished in relative obscurity for the better part of two hundred years. This is why it is important to demonstrate, with convincing evidence, that Vyse's claimed discovery is entirely bogus for, in removing his false

evidence, we may be able to dislodge the tomb-of-Khufu narrative and open our eyes to other possibilities for these monuments; we may then be able to go back to basics and consider more seriously what the Coptic-Egyptian oral tradition tells us about these monuments.

And, as previously mentioned, one of the other important things the Coptic-Egyptian tradition tells us is that the Great Pyramid, Sūrīd's great recovery vault, was built also to secure the mummified bodies of his ancestors. Since not a single one of these ancestor kings and queens has ever been discovered, then it seems self-evident that they must have been placed within a hidden chamber of the pyramid, the Big Void, high up within the monument's superstructure, to ensure the bodies were as high above the coming floodwaters as possible. To protect them from any potential threat, there would be no access passageways—none whatsoever—making it virtually impossible for anyone ever to detect the presence of, let alone gain access to, this chamber. Each deceased king and queen would be placed into the Big Void when its roof was still open during construction, and when the assembly of kings and queens was fully complete, the Hall of the Ancestors would be hermetically sealed as the pyramid was built upward and over it to completion. In this sense, one can regard the chambers within the pyramid that possess passageways and entrances almost as decoy chambers. Who would ever think of looking for a chamber where there was no discernable passageway or hidden entrance?

But the builders still could not be certain that the remains of the mummified ancestor kings and queens could survive the coming upheaval, and so, below this great void chamber, the inaccessible Hall of the Ancestors, they built a second massive chamber that we know today as the Grand Gallery. In accordance with their religious beliefs, into this chamber would be placed a statue bearing the likeness of each ancestor king (and his queen) along the length of and on each of its sides—twenty-seven kings and twenty-seven queens in total. (Some Arabic texts tell us that such statues were indeed found in this chamber when the Great Pyramid was first breached, ca. 820 CE.) The purpose of the statues was a practical one, for should the actual mummified bodies in the great Hall of the Ancestors (above the Grand Gallery) become too decayed, then the stone statue of each king and queen would serve as a surrogate body for his or her soul to take refuge and become an akh. It may be no coincidence, then, that we find the number of kings preceding Khufu, going all the way back to Menes, the first king of the unified kingdom, was twenty-seven in number.

It is also worth noting here that the original burials of some of these ancestor kings (and one queen) were found undisturbed, with the sarcophagi fully sealed and intact. However, upon removing the lid from each of these sarcophagi, no mummy was found inside, even though, in the case of Queen Hetepheres I (Khufu's mother), there is good evidence to indicate that the mummy *did* once occupy the now empty sarcophagus.

Also worth mentioning here is that these sealed and empty sarcophagi all predate the reign of Khufu. Only Khufu's *ancestors* (not any of his successors) have been found to have these peculiar sealed but empty sarcophagi. This phenomenon has puzzled Egyptologists, who find it difficult to rationalize all the circumstances around these peculiar discoveries into a cohesive and sensible picture. However, if we accept the Coptic-Egyptian tradition as to the purpose of the Great Pyramid as offering a sanctuary for these kings and queens against a coming deluge, then these sealed but seemingly abandoned ancestor sarcophagi are precisely what we would expect to find. The bodies of Khufu's ancestors, all twenty-seven kings and queens, were simply removed from their original burial sarcophagi (which were then respectfully and ritually resealed) and relocated to the protection of the great Hall of the Ancestors (the Big Void), high up within the Great Pyramid, from whence, at the appropriate time, they would collectively act, through the agency of the god Osiris, to intercede with the gods and bring about the rebirth of the kingdom. Such was the responsibility and power of these Osirian Kings.

In addition to providing secure storage for seeds and tools and giving sanctuary to the former kings and queens of Egypt, the CopticEgyptian legend further informs us that the Giza pyramids (particularly the so-called Queens' Pyramids) appear to have served another, secondary purpose—as a universal stellar timepiece that uses the precessional motion of Orion's Belt to tell us when this great unnatural motion of the stars (the pole shift event) in Egypt actually occurred (ca. 10,081 BCE). Not only this, but this stellar clock also informs us that the *periodicity* of these cataclysmic events is every 7,693 years. With this stellar clock we can then determine when the most recent event occurred (ca. 2388 BCE) and, most important from our own civilization's perspective, when the *next* cataclysm is likely to occur, which, if the interpretation of the Giza stellar time line presented here is correct, won't occur until circa 5305 CE. We can all sleep easily in our beds for a long while yet.

This book began with a "troublesome discovery," the Big Void. To Egyptologists, the presence of another massive chamber within the Great Pyramid makes little sense in terms of their own understanding of these monuments, the pyramid-as-tomb-of-the-king paradigm. And if, as I suspect, the ancestor kings and queens of

Khufu are one day discovered within this great Hall of the Ancestors, then Egyptology, as it is presently stands, will crumble. And perhaps deservedly so, for if we take it upon ourselves to cast as mere myth and legend that which the Coptic-Egyptians have to say about their own history and understanding of these monuments, then we arrogantly dismiss these ancient voices at our peril.

APPENDIX 1

Portrait of a Fraud

Analysis of Colonel Vyse's Activities

As stated throughout this book, the discovery of the painted marks presented by Colonel Vyse from the four Vyse Chambers had the effect of Egyptology accepting, uncritically, that Khufu built the Great Pyramid as his eternal tomb despite the fact that early medieval Arabic translations of some Coptic-Egyptian oral traditions (rightly or wrongly) tell us that the pyramids, including the Great Pyramid, were constructed by Sūrīd (Suphis/Khufu) as a great recovery system for the kingdom in anticipation of a civilization-ending deluge.

Notwithstanding the extensive evidence hitherto presented in my previous books and articles that calls into question Vyse's claimed discovery of the painted marks within these four cramped chambers of the Great Pyramid, it seems that the more we analyze the available evidence relating to his discovery, the more errors, anomalies, and inconsistencies we find, all of which adds to the already considerable body of evidence previously uncovered that indicates the strong likelihood of a quite audacious hoax having been perpetrated within the Great Pyramid by Vyse and his closest assistants in the spring of 1837. There are simply too many questions with regard to these painted marks for any objective mind to remotely accept them as being genuine artifacts from the time of Khufu. And Vyse, we should not forget, is a man now known to have perpetrated a major fraud earlier in his life in his bid to become a member of the British Parliament in 1807.[*36] Is he a man who can be taken at his word?

It is unlikely, of course, that we will ever find a signed confession from Vyse or any of his accomplices admitting to this fraud. What we must do instead, therefore, is continue to carefully study what these men left behind, analyzing the inconsistencies, mistakes, and contradictions in the available evidence—the stylistic elements of the marks— this being one of the means by which this hoax can be exposed and this evidence presented by Vyse discredited. Only then, with Vyse's false evidence removed, will we be able to look upon these monuments with fresh eyes and begin to contemplate their true meaning and purpose.

STYLE MATTERS: EXAMINING THE ORIENTATION OF THE MARKS

The painted marks that Vyse presents from the four chambers he discovered entirely distort and muddle the historical picture with respect to the chronology of the pyramid's construction and, by extension, the chronology of the Old Kingdom itself (even in terms of the orthodox chronology). This arises from the paleography of the script used in these marks, which possess a number of stylistic elements that appear to be entirely anachronistic to the period circa 2550 BCE, when the Great Pyramid was supposedly built. A number of these elements find their best

stylistic/paleographic matches between the Eighth and Eleventh Dynasties—around six hundred years *after* the conventional date for the pyramid's construction.[†37]

A simple comparison of the king's name written in old hieratic script from the Fourth Dynasty period, when the Great Pyramid was supposedly being built, clearly demonstrates some marked differences (fig. A1.1, p. 188). In contemporary papyri from the period, as well as graffiti written elsewhere in Egypt, we find most of the king's cartouches are presented in a vertical fashion (fig. A1.1, *upper*). This contrasts quite starkly with the various Khufu cartouches supposedly discovered by Vyse within the Great Pyramid, in which the hieratic text, without exception, presents all of the king's various names in horizontal (linear) fashion (fig. A1.1, *lower*). Furthermore, we find that every example of the Horus name of Khufu found within the Vyse Chambers is entirely devoid of the "palace facade" motif (the vertical lines at the bottom of the Horus Medjedu inscription, which symbolize the royal palace and power base of the king) and also the enclosing rectangular frame known as a *serekh,* suggesting it is a much evolved and simplified hieratic version of this particular Horus name (and thus that it comes from a much later period).

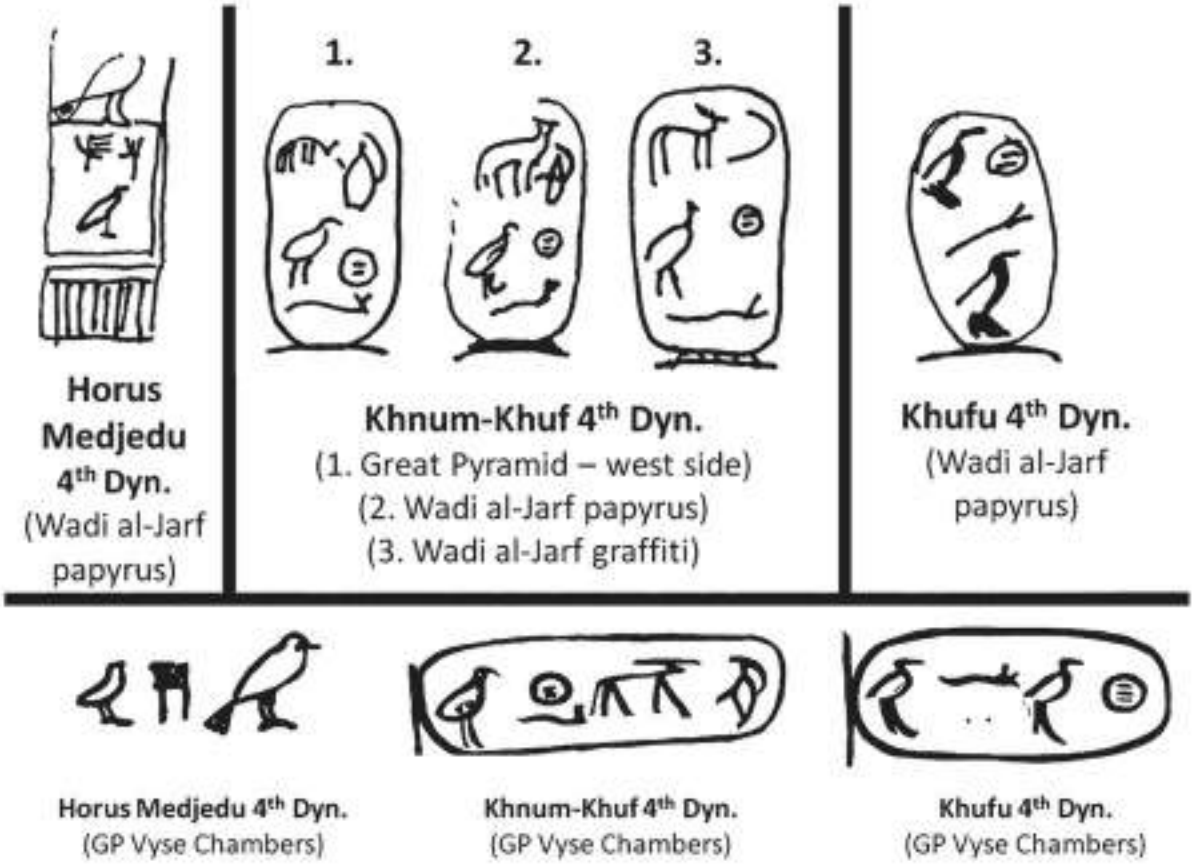
1.
2.
3.
Horus Medjedu 4th Dyn. (Wadi al-Jarf papyrus)
Khnum-Khuf 4th Dyn. (1. Great Pyramid – west side) (2. Wadi al-Jarf papyrus) (3. Wadi al-Jarf graffiti)
Khufu 4th Dyn. (Wadi al-Jarf papyrus)
Horus Medjedu 4th Dyn. (GP Vyse Chambers)
Khnum-Khuf 4th Dyn. (GP Vyse Chambers)
Khufu 4th Dyn. (GP Vyse Chambers)

Figure A1.1. A comparison of hieratic text showing how Khufu's name was usually written in hieratic text during the Fourth Dynasty (upper) *and the various names of Khufu in hieratic text from the Vyse Chambers* (lower). *Note also how the Horus name* (lower, left) *is no longer contained within the rectangular serekh* (upper, left), *nor does it present the distinctive palace facade motif.*

Whenever we find contemporary texts of the kings from this period, such as Djedfre's name in both Giza boat pits[*38] or the Khufu, KhnumKhufu, and Horus names at Wadi al-Jarf (and on some exposed core stones of the Great Pyramid), we find that they are invariably written in a vertical fashion.

It is known, of course, that ancient Egyptian script can be written variously in vertical or horizontal fashion

(sometimes even both orientations are used in the same inscription). But the general understanding that Egyptologists have acquired of ancient Egyptian hieratic script is that it was first written in columns and gradually evolved to being written horizontally in rows. In this regard, the ancient Egyptian hieratic expert Hans Goedicke informs us, "The horizontal arrangement evolved slowly . . . the reign of Amenemhet III (1842–1795 B.C.) appears to mark the watershed between vertical and horizontal line arrangement. . . . After the adoption of the horizontal arrangement there were no relapses into the earlier form."[1]

And so, caveats notwithstanding, we see that the general trend in ancient Egyptian hieratic writing was from a vertical to a horizontal form. This evolution in hieratic script appears, unsurprisingly, to have applied also to the quarry gang names.

Applying this general trend to the various names of Khufu (and other associated marks) that were supposedly found by Vyse inside the Great Pyramid, which are written—without exception—in horizontal fashion, suggests that the British pyramid explorer had, bizarrely, found within these chambers painted marks in a style that only arose in a period long after the pyramid was supposedly built, when hieratic script had fully evolved into its horizontal form (fig. A1.2, p. 190).

But how could this be? As a result of his ignorance of the evolution between hieroglyphic and hieratic writing, it is conceivable that Vyse and his accomplices had found authentic but *anachronistic* marks from somewhere else (most likely on the stones in the rubble outside the pyramid, somewhere that they would have been largely protected and preserved from the elements) and, unwittingly, copied these much younger marks into the four Vyse Chambers.

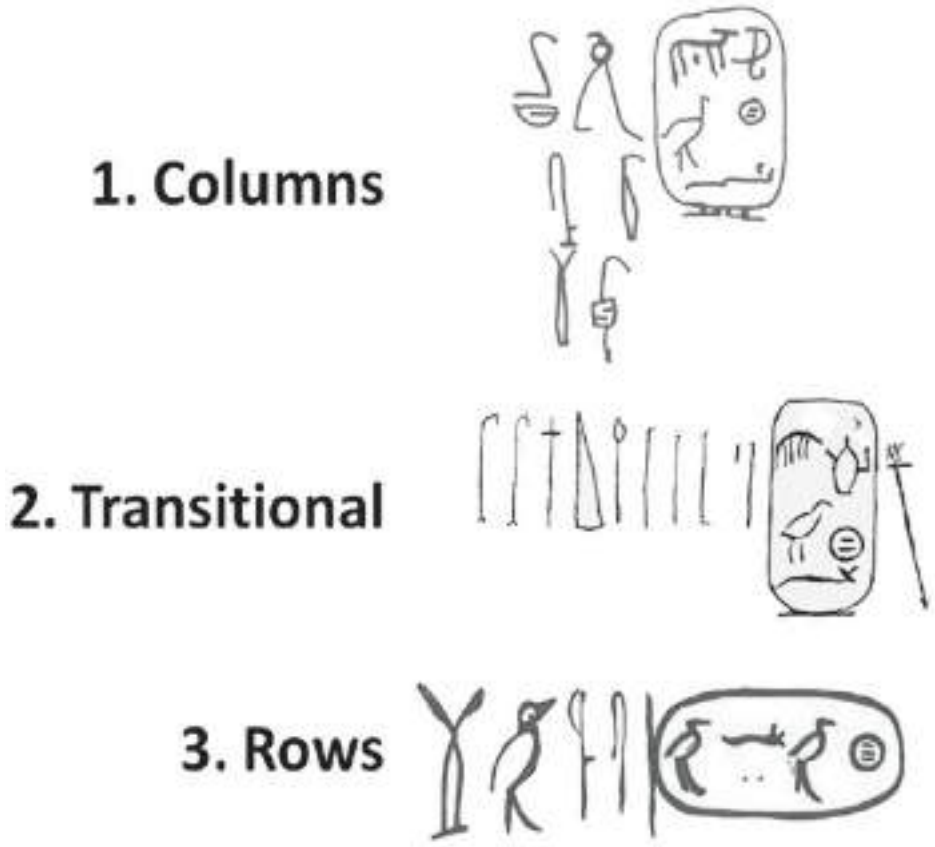

Figure A1.2. Ancient Egyptian quarry gang names appear to demonstrate the evolution of hieratic script from being written in columns to being written in rows.

This hypothesis finds some support from the crudely painted horizontal Khufu cartouches that were found relatively recently in the second boat pit on the south side of the Great Pyramid. Afifi Rohim Ghonim, who was part

of the investigating team exploring this boat pit, said of the horizontal Khufu cartouche found therein, “If we make a comparison for this cartouche of Khufu which we discovered on our cover stones [of the second boat pit] with the cartouche found in the five rooms [the cartouche in Campbell’s Chamber, one of the four chambers discovered by Vyse], we will find it the same—they used the same techniques, the same colors.”[2]

Ghonim essentially tells us that the horizontal Khufu cartouche in the second boat pit is stylistically the same as that within Campbell’s Chamber, that they have an identical provenance. However, a problem arises when we consider the view of other Egyptologists regarding the Khufu cartouche within the Great Pyramid. On the Ahram Online website, Nevine El-Aref writes, “Ahmed Saeed, professor of ancient Egyptian civilization at Cairo University . . . suggests the [Khufu cartouche in Campbell’s Chamber] could have been written during the Middle Kingdom era [ca. 2050–1652 BCE], due to the style of writing used.”[3]

Figure A1.3. The horizontal Khufu cartouche found in the second southern boat pit at Giza.

Given that Ghonim states that the Khufu cartouche in the second boat pit (see fig. A1.3) is written in the same style as the Khufu cartouche in Campbell’s Chamber, then it becomes entirely possible, as Saeed’s statement above implies, that the similarly styled horizontal boatpit cartouche of Khufu might also date to the Middle Kingdom period.

If Saeed is right and the horizontal Khufu cartouches in the second boat pit stylistically belong to the Middle Kingdom period, then this suggests that the second boat pit (at least) had been open and accessible for many hundreds of years after construction, long before perhaps being finally sealed in the Middle Kingdom period. In short, we simply do not know for certain when these boat pits were sealed with their massive fourteen-ton blocking stones, and neither can we be certain if the blocking stones themselves were not repurposed in the Middle Kingdom period (bearing painted cartouches from an earlier period when they were first worked), perhaps taken from some other older construction that may have once existed at Giza (or elsewhere), a practice that was not uncommon in ancient Egypt. And, naturally, when reworking these scavenged stones for the purpose of covering the boat pits, the Middle Kingdom workers would have then painted their own (evolved) gang name marks onto the blocks, thereby giving us the seemingly mixed provenance of cartouches that we observe on these stones today.

It barely needs to be said, but the ramifications of these comments from these two prominent Egyptologists with regard to the provenance of the similarly styled cartouches that Vyse allegedly discovered within the Great Pyramid are huge. How exactly is it possible that cartouches that stylistically belong to the Middle Kingdom period could be found within entirely sealed and inaccessible chambers of a monument dated to the earlier Old Kingdom period?

OFFENDING THE KING

The question arises: If we find these construction crew names painted onto stone blocks within the formerly inaccessible Vyse Chambers, why don’t we see any of them painted also on any of the stone surfaces within the accessible passages and chambers of the Great Pyramid? Why are all of these areas completely devoid of such markings? Egyptologists typically answer this by asserting that such marks probably *had* been painted onto the stones in these passages and chambers when the pyramid was still under construction but that these marks would, subsequently, have been scrubbed from the block surfaces so as not to offend the eyes of the funerary procession transporting Khufu’s body through these narrow passages to his final resting place in the so-called King’s Chamber. They further assert that the crudely painted marks in the sealed Vyse Chambers, however, would never have been seen by the funerary party, so there would have been no need to remove any of these; hence, that’s why we find

them there today.

It's an explanation of sorts. But it misses a crucial point about the funerary practices and religious beliefs of the ancient Egyptians of this period, who believed that, with a few magic spells, the king's soul could pass through stone. Thus, with such an ability, how, exactly, would these painted marks be shielded from Khufu's soul? In effect, what Egyptology is proposing is that graffiti was removed only from where it might be seen by the eyes of the living (the funerary party) but that is was essentially okay for the king's soul to be exposed to it in the Vyse Chambers.

The Vyse Chambers might not have been within reach of the living, but their inaccessibility, we are told, would have been little problem for Khufu's soul. And given that Khufu's priests would have understood this, then is it not more likely that they would never have permitted even the possibility of such an offense to the king's soul to occur and would have ensured that all marks—even those within the inaccessible Vyse Chambers—would have been scrubbed away? Why risk offending the king and potentially confusing his ka in his afterlife with such profane graffiti? And yet, we are expected to accept that these marks are genuine and that the king's priests would not have objected to their presence on the blocks of the Vyse Chambers as the pyramid was being built.

THE "BROTHER OF SUPHIS" MYSTERY

Such objections notwithstanding, mainstream Egyptology, however, remains steadfast in its opinion that the crudely painted marks presented to the world by the British pyramid explorer are the real deal, genuine artifacts from the time the pyramids were built. Unarguably, the primary reason why the painted marks are considered by Egyptology as being authentic comes from the fact that Vyse's discovery presents something that no one in 1837 could ever have anticipated or, indeed, reasonably explain: there were *two* different king's names (cartouches) found in the chambers (fig. A1.4)![*39]

Today, Egyptologists insist that these two cartouches belong to the same ancient Egyptian king and that the name Suphis (fig. A1.4, *upper*) is but an abbreviated version of the second cartouche, Sen-Suphis (fig. A1.4, *lower*). However, this was not known in Vyse's time, when it was believed by the leading scholars of the day that these two slightly different cartouches actually belonged to two quite separate kings (two brothers). So why, the critics ask, would Vyse risk drawing scrutiny to his alleged discovery by placing what was believed at the time to be the cartouches of two different kings, two brothers, within these chambers? Why insert two cartouches when placing just one in these chambers would have drawn fewer questions and would have been just as effective in corroborating the writings of Herodotus in attributing the monument to Suphis/Khufu?

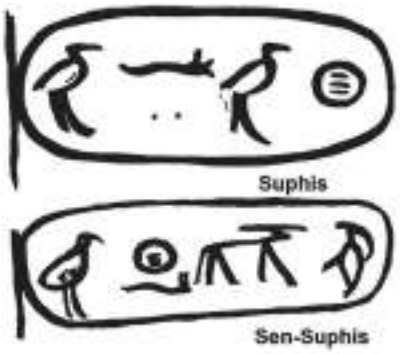

Figure A1.4. The two cartouches from within the Vyse Chambers of the Great Pyramid.

On the surface, this seems a fairly robust argument against Vyse having perpetrated any fraudulent actions, and for him to have placed two king's names (rather than the safer option of just one) into these chambers would have required some compelling reasons for him to have come to such a bold decision, not to mention the knowledge required to do so. However, when we consider the details of the situation, what we find is that there are, in fact, a number of possible scenarios that could have brought Vyse—contrary to the scholarly view of his time—to the

conclusion that both cartouches should be placed within the chambers he had discovered.

Of course, it might reasonably be argued that the very fact that few people would have expected Vyse to have placed both of these cartouches into the chambers when just one of them would have served his needs, may, paradoxically, have been the very reason why he took such a bold action. If the colonel had reasoned that few would believe that he could ever have made such an audacious move, then, it actually becomes the best reason for doing so—a double-down double-bluff that salts the deception with a "whiff of authenticity" on the basis of its sheer audacity.

In short, the conventional view is that the two royal cartouches we find today in these chambers must be authentic because Vyse wouldn't ever have dared doing something so clearly at odds with the prevailing academic knowledge of the day (academia, we may remind ourselves, that was itself still in its infancy in understanding ancient Egyptian writing).

The colonel's actions, of course, would primarily depend on what he was able to learn about these two cartouches and whether any knowledge he was able to obtain was compelling enough to convince him that both cartouches should be placed within the chambers he had discovered. If such information was available at the time that convinced Vyse that there was a good likelihood that these two cartouches actually belonged to one and the same king, then placing both into the chambers would actually have been more of an intuitive and clever decision rather than the complete uneducated gamble it is often portrayed to have been. But was such information available and could Vyse have had access to it at Giza in 1837?

When Vyse embarked on his journey to Egypt in late 1835, the state of knowledge of this ancient country—particularly with regard to the reigns and successions of its many kings and queens—was incredibly vague. This situation is summarized by Vyse himself in his published account from 1840, in which he writes:

> Mr. Wilkinson, the highest authority in these matters, thus expressed himself: "No one is yet sufficiently advanced in the language of antient Egypt to enable him literally to translate an inscription of any length, or moderately complicated, though a general meaning may frequently be obtained." This assertion is unfortunately found to be true, notwithstanding the pretensions set up to the contrary. Nor does it appear that even Mr. Wilkinson has been able to establish any undoubted chronology, or succession of the antient kings, even with the aid of the stone found at Abydos, and of the Greek historians, or to reconcile in any way the differences which exist between the accounts of Manetho, and those of Herodotus.[4]

In Vyse's time, there were a number of conflicting and somewhat contradictory accounts from ancient sources as to the various names and spellings of the builders of the three main Giza pyramids. From these ancient sources, we have the names shown in figure A1.5, (p. 196).

For the purposes of this appendix, I shall mostly refer to these three kings—the Giza pyramid builders—using those names given to us by Eratosthenes, namely, Saophis I, Sen-Saophis, and Moscheres. In his 1828 book *Materia Hieroglyphica*, the British scholar Sir John Gardner Wilkinson had translated the Sen-Saophis of Eratosthenes as meaning the "Brother of Saophis" (Suphis) and had stated that these two brothers were the founders of the two largest pyramids at Giza. Wilkinson, however, was not able to identify which cartouche belonged to Saophis I or Sen-Saophis.[*40]

So we must ask then: If Vyse did perpetrate a fraud within the Great Pyramid, why would he place the cartouches of not one but two different kings (supposedly two brothers, Saophis I and Sen-Saophis) into the newly discovered chambers? Indeed, the critics argue, for Vyse to have known, in 1837, that these two cartouches were not of brothers at all (as the leading scholars of the time believed) but actually belonged to the same king would have made the British colonel the foremost scholarly authority of his day, exceeding the knowledge of Wilkinson and Ippolito Rosellini.

	G1 Pyramid	G2 Pyramid	G3 Pyramid
Herodotus (484 BCE):	Cheops	Cephrenes	Mycerinus
Manetho (300 BCE):	Suphis I	Suphis II	Mencheres
Eratosthenes (276 BCE):	Saophis I	Sen-Saophis	Moscheres
Diodorus (90 BCE):	Chembes (or Chemnis)	Kephren	Mycerinus (or Mecherinus)

Figure A1.5. The various historical names given as the builders of the three Giza pyramids.

So how could a complete amateur such as Vyse have confounded the experts of his day and acquired for himself the necessary knowledge to pull off such an audacious, convincing, and lasting fraud?

MARKS ON THE STONES

From his published work, Vyse informs us that he found part of the royal cartouche of Khufu (Saophis I) on a stone among the debris on the north side of the Great Pyramid[5] and that he also found other painted quarry marks on some stones at the south side of the monument.[6] While Vyse presents in his published account only a few of the painted marks that were found on the pyramid's south side, it is entirely likely that many more were found, possibly including the cartouche of Saophis I (and associated marks) and also the king's Horus name (not in a cartouche), which Vyse would not have been able to recognize as a king's name. In the pyramid's north side, the colonel may well have found there, on some stones buried in the great mound of debris, cartouches of Saophis I and SenSaophis. Vyse may then have pondered as to why he was finding two different (though similar) royal cartouches on these stones among the debris on the pyramid's north side but only the Saophis I cartouche and other unknown markings among the debris on the pyramid's south side.

Since it was known in Vyse's time that it was Saophis I who built the Great Pyramid, then if the British explorer had been planning to place a fake cartouche within the hidden chambers he had blasted open, he might have wondered if either of the two cartouche types he had (hypothetically) already found among the debris was that of Saophis I, the pyramid builder. And so, before copying any of these marks into the newly discovered chambers, the colonel would first have to be certain that any cartouche he had found was indeed that of Saophis I; he could hardly choose some cartouche at random, copy it into the chambers, and simply hope to pass it off as the cartouche of the pyramid builder. In short, to pull off his hoax, the colonel would have to find some way of checking if either of the cartouches he had (theoretically) found among the pyramid rubble was indeed that of the pyramid builder.

But here's a curious thing: from Vyse's private journal, it is perfectly clear that, during his operations at Giza, he already *knew* which of the hundreds of ancient Egyptian royal cartouches was, in fact, that of Saophis I.[*41] But how and from where could he possibly have obtained such information? There is perhaps a clue to this little mystery in a passage from the *Quarterly Review* periodical, published in the United Kingdom in the spring of 1835, about six months before Vyse departed England for Egypt (fig. A1.6).

The absence of hieroglyphics has usually been adduced as the conclusive proof of the antiquity of the pyramids, showing that they were raised before the use of written characters. Besides the name of Suphis, that of his successor, called Suphis the Second by Manetho, Sensaophis by Eratosthenes (the Cephren of the Greeks), has been copied in the tombs at Geezah. Sensaophis, according to Mr. Wilkinson (Materia Hieroglyphica, part ii. p. 74): and Rosellini, (vol. i. p. 130), means, brother of Suphis. He was the builder of the second pyramid. Mencheres, the name which succeeds in the list of Manetho, is not improbably identified with the third founder of the pyramids, the Mycerinus of Herodotus.

Figure A1.6. Extract from "Egypt and Thebes" in the February and April 1835 edition of the Quarterly Review, 115.

Had Vyse read this article, then it would have given him a big clue as to where to search for information concerning Saophis I ("Suphis") and possibly learn of the hieroglyphic spelling of his name, that is, his cartouche. In the first instance, he would likely have consulted Wilkinson's *Materia Hieroglyphica*, this book likely being more easily accessible to him. This scholarly tome was published in 1828, some seven years before Vyse embarked on his voyage to Egypt. But, as previously stated, in reading Wilkinson's earlier work, Vyse would have discovered that, while it notes "Suphis" (Saophis I) and "Sensaophis" (Sen-Saophis) as the pyramid builders, it does not actually present their cartouches, the hieroglyphic spelling of these kings' names. With Wilkinson's work being a dead end, Vyse would likely have next obtained a copy of the Rosellini work cited in the *Quarterly Review* article. If Vyse had, indeed, done this, then perusing page 128 of Rosellini's book, *I Monumenti Dell' Egitto E Della Nubia*, he would have read (in Italian), "Among them is a sign that is written in No. 2 on plate I at the end of this volume, which reads Suten Oueb Sciufo, that is to say, the pure King, Priest, or Prophet Sciufo. This name shows a very notable analogy with the Suphis of Manetho, the second king of the IV dynasty (2)."

Even if Vyse could not read Rosellini's Italian text, it would not have been beyond him to have found someone who could have translated the passage for him, such as his Italian colleague at Giza, Giovanni Caviglia (a man who had confided in Vyse of his belief that there were hidden chambers above Davison's Chamber and whom Vyse subsequently sacked and banished from the site). If Vyse then went to Plate 1 at the end of Rosellini's work, he would have found the list of kings' cartouches shown in figure A1.7.

Here we find that Rosellini has identified the hieroglyphic spelling of the Suphis/Khufu and Sen-Saophis cartouches, which would have given Vyse the all-important information he needed to perpetrate a fraud. But what evidence is there that Vyse actually read this *Quarterly Review* article from 1835 and that he had access to Rosellini's 1832 book? While Vyse tells us in his published account that he had with him a book by Wilkinson, he makes no mention of having with him Rosellini's book with its key information. Intriguingly, however, in his private journal entry of October 18, 1836, Vyse writes the following short passage: "Wrote notes from the Quarterly Review abt: Rosellini & Champollion, our first books, 69 dollars 14.7.6 in half crowns."

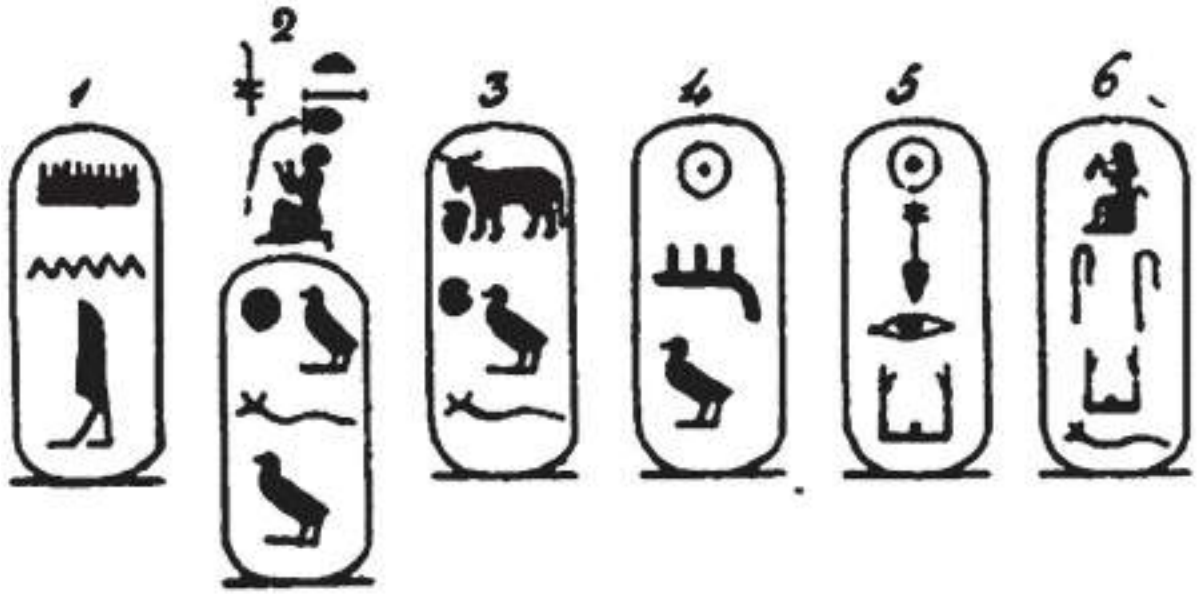

Figure A1.7. Plate 1 in Rosellini's book I Monumenti Dell' Egitto E Della Nubia *(page 130) presents the hieroglyphic spelling of the Suphis/Khufu cartouche* (labelled # 2) *and the Sen-Saophis cartouche* (labelled # 3).

The amount Vyse paid for these books by Rosellini and Champollion, 14 pounds, 7 shillings, and 6 pence (paid with 115 half-crown coins), was a substantial investment and would, in today's terms (accounting for inflation), amount to around £1,650 or around $2,000. This was a very serious investment, indeed, and we might legitimately wonder why Vyse considered such a heavy purchase was necessary. We might further wonder here why Vyse writes in the plural, "*our* first books."

A search through the various issues of the *Quarterly Review* from 1835 to Vyse's journal entry of October 1836 reveals only one issue (volume 53, February and April 1835) that gives any mention of the works of Champollion and Rosellini. Thus, given his journal comment of October 1836, it seems that Vyse did, in fact, read this *Quarterly Review* article (fig. A1.6) and that he did go on to purchase Rosellini's book, which would have lead him to find the hieroglyphic spelling of Suphis/Khufu, which, as previously stated, we learn from his private journal, he did, in fact, know during his time at Giza.

And using Rosellini as his reference, the colonel could not have failed to notice that the Italian scholar presented the Saophis I cartouche vertically aligned (fig. A1.7) but that the cartouches he was hypothetically finding painted onto the stones in the debris outside the Great Pyramid were oriented horizontally (because they were likely from a much later period). Vyse would have been entirely unaware of the anachronistic style of these genuine builders' marks he theoretically had found, and he would have blithely copied them from the stones outside the pyramid into the newly discovered inner chambers, ensuring also to replicate any pattern of distribution these painted marks may have presented (more on this shortly).

With further consideration of Rosellini's work, Vyse may have noticed that the Italian scholar had also identified the other cartouche that the colonel had hypothetically found among the debris at the base of the pyramid's north front and that the learned Italian had accepted Wilkinson's interpretation of this second cartouche as meaning the "Brother of Saophis." Further analysis of the works of Rosellini and Wilkinson may also have brought Vyse to a series of logical deductions that would, inexorably, lead him to the realization that these two cartouches he had theoretically found in the debris around the pyramid could not, in fact, be the names of brothers at all, but that they both actually belonged to the same king. As such, this would then have compelled the colonel to place not one but *both* of the royal cartouches he had found into the Vyse Chambers of the Great Pyramid, albeit for an erroneous reason.

To be clear—the question here is not so much that the early academics such as Wilkinson and Rosellini believed that Sen-Saophis was to be understood as meaning the "Brother of Suphis" and that this brother built the

second pyramid, but is rather more about how these scholars could possibly have come to such a translation in the first place when it surely should have occurred to them that the translation of SenSaophis as meaning “Brother of Suphis” is:

1. Such a nonsensical name for any ancient Egyptian parent to name their son, and,
2. The name Saophis I and the “Saophis” part of Sen-Saophis logically cannot both be translated into the hieroglyphics for the two Greek names of these kings, Cheops and Cephrenes. This is to say that the Greek name Cheops and the Greek name Cephrenes, being significantly different, cannot both translate back to the name Saophis (or its hieroglyphic spelling) and that these scholars should have realized this simple logic. That they didn’t is baffling.

ONE AND THE SAME

A study of the painted marks within the Vyse Chambers reveals that Wellington’s Chamber and Lady Arbuthnot’s Chamber bear only the Sen-Saophis cartouche while the topmost, Campbell’s Chamber, presents only the Saophis I cartouche. (Nelson’s Chamber has no obvious cartouches.) We will now consider a number of hypothetical scenarios that may help explain why Vyse might have felt compelled to place both of these royal cartouches into these chambers.

First of all, one of the interesting things the ancient historians tell us of Saophis I and Sen-Saophis is the great length of time that they each reigned. Herodotus gives us reigns of fifty and fifty-six years, respectively, whereas Manetho gives reigns of sixty-three and sixty-six years, respectively. Such lengthy reigns have led a number of later commentators to take the view that these two kings must have reigned together in a co-regency. Vyse may also have seen from the works of Wilkinson and Rosellini that Saophis I and Sen-Saophis were believed to have been brothers. Were Vyse, in 1837, to have considered this information, then it becomes conceivable that he may also have come to the view that these two brothers were likely to have been co-regents. This thought may well have been reinforced if he was actually finding the cartouches of these two kings among the debris on the outside of the pyramid, and, given this, it would not have been unreasonable to him that these two cartouches should then also be found within the pyramid.

Second, in Vyse’s time it was believed (via the historian and bishop Eusebius, citing Manetho) that it was actually Suphis II (also named the Sen-Saophis of Eratosthenes) who built the Great Pyramid. And so, if Vyse had come upon and accepted this remark given by Eusebius, then this would easily explain his placement of the Sen-Saophis cartouche within the lower chambers. However, in the fourth and final chamber opened by Vyse we find only the Saophis I (Khufu) cartouche. What this may indicate is a late change of mind by Vyse (perhaps he later came to believe that the structure had been built by Saophis I), and so he placed only this cartouche within the final chamber. However, he could hardly now remove the Sen-Saophis cartouches he had previously placed in the chambers below as these had already been independently witnessed on the walls there by others, with copies of them having already been sent to the British Museum in London. Admittedly, this possibility is much less likely to have influenced Vyse’s decision because, Eusebius aside, the prevailing view in Vyse’s time was that Saophis I had built the Great Pyramid.

A third possibility and more likely scenario arises from a study of the cartouches and texts in the academic books that would have been available to Vyse in 1837. One of the first questions that almost certainly would have crossed Vyse’s mind with regard to the cartouche of Sen-Saophis presented in these early Egyptology books (some of which we now know he actually purchased) would have been why the name within this royal cartouche was being interpreted by scholars as “Brother of Saophis.” In this regard, Rosellini writes, “Sensciufo (Chephren) autore della seconda piramide. . . . In questo Scencsciufo poi ritroviamo evidentemente il nome del successore di Suphis, che sebenne nei cataloghi di Manetone si chiami semplicementi Suphis II e pero con piu precisione chiamato nella lista di Erastothenes Sensuphis o Sensaophis. E Sensaophis significa (come l’avverti giustamente il dotto Wilkinson) fratello di Saophis.”[7]

Translation: “Sensciufo (Chephren) author of the second pyramid. . . . In this Scencsciufo then we clearly find the name of the successor of Suphis, which in Manetho’s list is called Suphis II but more precisely named in the list of Eratosthenes as Sensuphis or Sensaophis. And Sensaophis means (as the learned Wilkinson rightly stated) ‘brother of Saophis.’”

Here was a royal cartouche of an ancient Egyptian king that Wilkinson and Rosellini wrongly believed was to be read as “Brother of Saophis.” Had Vyse read this passage, he could reasonably have pondered why on Earth two ancient Egyptian royal parents would have named one of their sons the Brother of Saophis (a.k.a. the brother of another of their sons, or brother of the king). *What kind of a name is that?* Vyse might well have pondered. As a king’s royal name (within a cartouche) it makes zero sense. Indeed, upon taking the throne, why would this king, SenSaophis, still wish to be known as the Brother of Saophis? Surely, this brother of Saophis, this new king would have desired his very own king’s name upon ascending the throne. Was “Brother of Saophis” really the actual royal name of the builder of the second Giza pyramid?

In pursuance of this particular train of thought and the obvious absurdity of such a king’s name, Vyse could then have considered the names that Herodotus gave as the builders of these monuments, namely: Cheops, Cephrenes, and Mycerinus. Compare these Greek names with the counterpart names given by Eratosthenes, shown in figure A1.8.

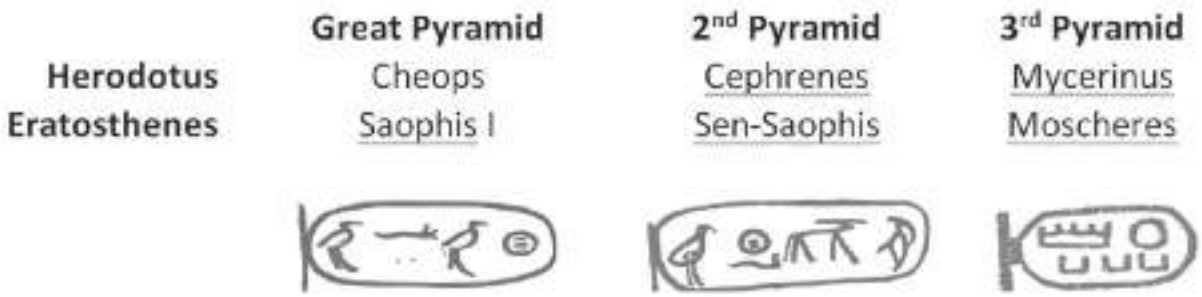

Figure A1.8. The names of the kings who built the pyramids, as given by Herodotus and Eratosthenes, along with their hieroglyphic equivalents.

In consideration of the various kings’ names given by Herodotus and Eratosthenes, Vyse might logically have concluded that the first three signs in the Sen-Saophis cartouche (fig. A1.9, *dashed box*) represented the name Saophis (because these signs were the same as those in the Saophis I cartouche). The remaining two signs of the Sen-Saophis cartouche (fig. A1.9, *solid box*) the colonel probably deduced, erroneously, to be the word *brother*.

Pursuing this line of thought further, Vyse might then have wondered, if the Cheops of Herodotus = the Saophis I of Eratosthenes (fig. A1.8), why then should the Saophis element of the Sen-Saophis of Eratosthenes = the Cephrenes of Herodotus, a completely different name? In short, Vyse may have wondered how it was possible that the name Saophis could translate into Cheops and also translate into Cephrenes (fig. A1.9).

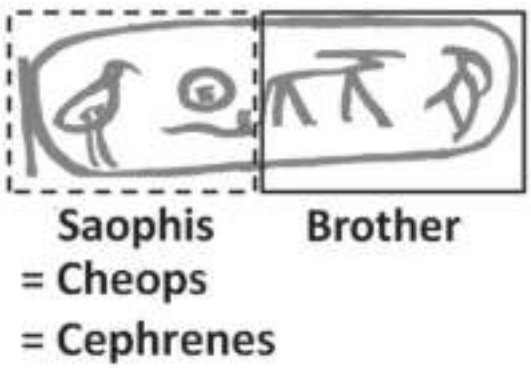

Figure A1.9. Based on the contemporary understanding of his time, Vyse may have believed that the first three signs in the Sen-Saophis cartouche represented the name Saophis (dashed box) *and that the last two signs* (solid box) *represented the word brother.*

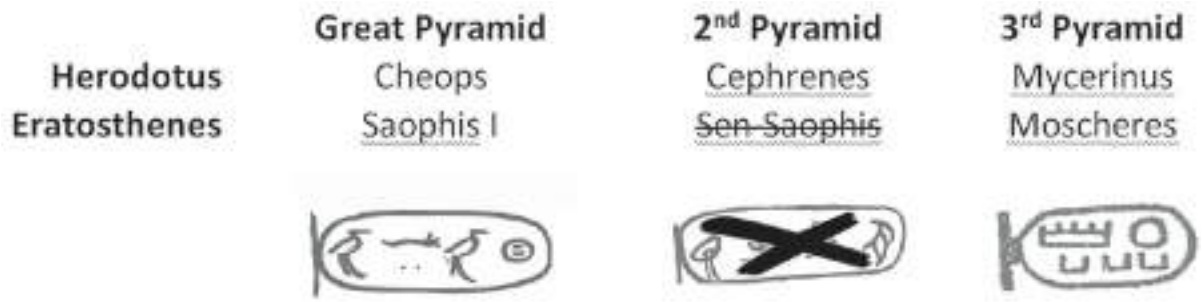

Figure A1.10. The Sen-Saophis cartouche logically cannot belong to Cephrenes since (Sen-)Saophis = Cheops, thereby implying that the name Cephrenes must consist of different hieroglyphics and a different cartouche. In removing its association with Cephrenes, the Sen-Saophis cartouche then becomes disconnected from the second pyramid and it thus effectively becomes homeless.

Vyse would likely have concluded, rightly, that this simply wasn't possible and must, therefore, be wrong. Thus, by simple deduction, the colonel could reasonably have concluded that if the Saophis part of the Sen-Saophis cartouche must also = Cheops, then this cartouche simply cannot belong to Cephrenes, who must, therefore, have a different (as yet unidentified) cartouche. And since Herodotus tells us it was Cephrenes who built the second Giza pyramid, then, by logical deduction, the Sen-Saophis cartouche cannot belong to the builder of the second pyramid, and it effectively becomes homeless; this cartouche must, logically, mean something else and belong to someone else (fig. A1.10).

And so, if Vyse had deduced that the Sen-Saophis cartouche logically could not belong to the Cephrenes of Herodotus, whom the academics in Vyse's time believed to be the builder of the second pyramid, then the colonel's next thought, naturally, would be to wonder precisely who this king Sen-Saophis actually was, where exactly this king fitted into the list of ancient Egyptian kings, and why he was (hypothetically) finding this king's name painted onto stones among the debris at the pyramid's north side.

VYSE'S KING'S GAMBIT

Well, first of all, there's a very obvious clue to answering this question that Vyse could not have failed to notice—quite simply, both cartouches present the name Saophis. Might they not be connected with each other in some other way? The answer to this particular question may have presented itself to Vyse from information that had long been publically available, even before he had ever embarked on his journey to Egypt in late 1835. With further consideration of Wilkinson's *Materia Hieroglyphica,* we find that the British scholar informs us of some intriguing aspects of the royal cartouche, or "oval."

1. That the phonetic names are always contained in the oval . . . which I shall distinguish by the word "nomen."
2. That the other oval, or prenomen, always contains a title, derived from the name of one, or more deities, which serves to point out more particularly the king, to whom both the ovals belong. . . .

4. That these prenomens, or titles being sometimes mentioned together with the nomens, have led to that disagreement, which exists amongst ancient scholars, in the names of the kings; they have confounded the prenomens with the nomens, or mistaken the one for the other . . . for it does appear in a few instances that Manetho has introduced both the nomen and the prenomen.[8]

Thus, through a series of simple deductions from the available knowledge—such as it was in 1837—it was perfectly feasible that the British explorer could have erroneously concluded that the two slightly different cartouches of Saophis I and Sen-Saophis were not, in fact, two different kings or two brothers at all, but that they could actually represent the nomen and prenomen cartouches of just *one* king.[*43] This idea could have been

reinforced in Vyse's mind with this comment from Wilkinson:

5. The prenomens were often varied, by the addition of other titles, but not by any omission of the original characters; thus, in many of the prenomens, we find more hieroglyphics than usual, and yet, the original title is still traceable.[9]

This is to say that the name in the shorter cartouche of Saophis I can still be perceived in the longer prenomen cartouche of Sen-Saophis, as presented in figure A1.4 (p. 193). And so, once more, upon reading the above passage from Wilkinson and then perhaps by a study of the cartouches presented by Rossellini, it is quite conceivable that Vyse could have erroneously concluded that these two slightly different cartouches he had hypothetically found on the stones outside the Great Pyramid were but the nomen and prenomen of the same king. Consequently, he could have decided that both cartouches should be copied into the newly discovered chambers that he had blasted his way into.[*43]

Vyse may, of course, have regarded the decision to place both of these cartouches into the chambers as something of a gambit, but if he had followed the information that was easily available in the academic texts of his time (and which we know he did have with him), then it would have been an educated gambit based on logical deductions that would have led him, inexorably, to the conclusion of "two cartouches, one king."

HOW COULD THIS HAVE HAPPENED?

As outlined earlier, these speculative painted blocks would have been recovered from the debris mounds on the north and south sides of the pyramid and, in analyzing them, Vyse would likely have observed their pertinent features and may have noted that:

- The painted marks were found only on limestone blocks, not on granite blocks.
- The painted inscriptions were confined to single blocks.
- Blocks recovered from the debris to the north and south of the pyramid bore the cartouche of Saophis/Khufu.
- The cartouche of Sensaophis/Khnum-Khuf was present only on blocks recovered from the pyramid's north side.
- The king's Horus name (Medjedu) was present only on blocks recovered from the pyramid's south side.

With the other groups of marks (which he almost certainly could not read) being found alongside or close to the one cartouche that Vyse *could* recognize outside the pyramid, the colonel would ensure that all of these other marks were copied into the various chambers he had blasted open, being careful to ensure that any distribution pattern of the marks he might have observed on the stones recovered from the debris outside the pyramid was replicated within the chambers. This would mean, for example, confining the marks of the king's Horus name to the south wall (and the southern end of the west wall), the Sensaophis/Khnum-Khuf cartouche to the north wall (and the northern end of the west wall), and the Saophis/Khufu cartouche to both the north and south sides of Campbell's Chamber (an observation that might actually have been a replication mistake by his hired fraudsters). Vyse would further ensure that the painted marks were copied onto limestone blocks only and that the text was constrained to single blocks.

However, in Lady Arbuthnot's Chamber we observe that the distribution of these quarry gang names is not entirely consistent, whereby one partial name, White Crown of Khnum-Khuf (Sensaophis), has been painted onto the south wall of the chamber, whereas all others of this type have been painted onto the chamber's north wall (as well as the northern portions of the east and west walls). In short, the distribution of the gang names (with their associated king's names), while generally conforming to a pattern, presents some distribution anomalies. And it is the anomalies that are interesting, for they may be indicative of Vyse's assistants erring slightly in emulating the distribution pattern that had theoretically been observed on the limestone blocks among the debris outside the pyramid's north and south sides.

And, of course, after Vyse had studied and retrieved the inscriptions from the various blocks, having fulfilled

their use, the blocks would likely have been broken up and discarded. (This action would ensure that the marks found on them could never be compared with the marks copied into the Vyse Chambers, thereby potentially exposing the colonel's fraudulent activities.)

And so, what the critics believed would have been an impossible task for Vyse could, in actual fact, have been achieved by him relatively easily with a simple reference to the available texts of his day, mainly the published works of Wilkinson and Rossellini, and thereafter by following a series of simple, logical deductions from those texts. Finding authentic painted marks on stones in the debris outside the pyramid, he could simply have followed any distribution pattern of the marks observed there and replicated them within the pyramid chambers. Job done.

I do not insist, however, that this is exactly what happened. It's hypothetical. All that is sought here is to demonstrate various scenarios whereby Vyse *could* have obtained the necessary knowledge needed to execute a convincing and lasting hoax.

And the rest, as they say, is history.

APPENDIX 2

Mounting Evidence

New Confirmation of Vyse's Deceit

The evidence presented in my previous book, *The Great Pyramid Hoax,* concerned itself primarily with the painted quarry marks from the lowest of the Vyse Chambers, Wellington's Chamber, and the uppermost, Campbell's Chamber. We will now consider a whole raft of new evidence that has only recently come to light from the other two Vyse Chambers (Nelson's and Lady Arbuthnot's) and that further indicates a hoax having been perpetrated within the Vyse Chambers of the Great Pyramid in 1837.

NELSON'S CHAMBER

Over the years, as I wrestled with the cryptic handwriting in Vyse's private journal (sometimes for days and weeks on end), slowly but ever so surely the fog clouding his nearly impenetrable script gradually receded, revealing ever more insights from his journal that had been overlooked for almost two hundred years.

On April 25, 1837, Nelson's Chamber became the second of the small chambers or apartments that Vyse blasted his way into, and in his published account of that day, he describes what he found when he first entered the chamber.

Notice in the description from figure A2.1, of the day Vyse opened and first entered this chamber, that he states, "Several quarry marks were inscribed in red upon the blocks, particularly on the western side."

April 25th.

Reis, 9. Men, 111. Children, 134.

Great Pyramid.—Excavation in southern front.
—— Excavation in northern front.
—— Wellington's Chamber.
—— Northern Air-channel.
Third Pyramid.—Interior.
Fourth Pyramid.—Interior.

Harvest having commenced, very few able-bodied men came, and the works at Campbell's Tomb, the Queen's, and Belzoni's Chambers, were necessarily discontinued. In the course of the day the chamber, subsequently called Nelson's, was discovered. It was entirely empty, had no regular entrance, and was floored with the reverse of the granite blocks of Wellington's Chamber, which it much resembled, as it had these dimensions, thirty-eight feet nine inches, by sixteen feet eight inches. The ceiling was of polished granite, and resembled those in the other chambers; but the northern and southern sides of the room were not entirely of that material. Several quarry-marks were inscribed in red upon the blocks, particularly on the western side. This apartment was evidently intended for the same purpose as those below it, viz. to carry off the weight of the building from the King's Chamber.

Figure A2.1. Extract from Vyse's published account of April 25, 1837, the day Vyse first opened and entered what would come to be called Nelson's Chamber. Vyse, Operations Carried On at the Pyramids, *vol. I, 234–35.*

Prior to the discovery of the painted marks in Nelson's Chamber, only one other example of similar painted marks had apparently been made within the Great Pyramid (in Wellington's Chamber). As such, the discovery of additional inscriptions in Nelson's Chamber would naturally have been regarded as a highly important discovery in its own right, and, as we might expect, Vyse would have wasted little time in writing of this important discovery in his daily journal, as we observe in his published account in figure A2.1.

However, as I have come to expect with Vyse's writings, things are never so straightforward or quite what they at first seem to be. When we now consider Vyse's private diary account of the very same day— April 25, 1837 —we find a quite different account with some glaring and highly significant omissions to the events of this day.

> *25th Sent off the people, breakfast, went to the temple, blew up stones north front of pyramid, Mr Perring came, rest, was sent for by Mr Raven, full width into hole called Nelson's Chamber, apparently like Wellington's, floored with the reverse of the blocks [that] are below; &c &c, paid off the people, dinner, & bed.*[*44]

As we can see in in Vyse's private journal—where he gives us his unedited, uncensored, private thoughts of that day's main events— there is no mention whatsoever of a discovery of any quarry marks in Nelson's Chamber, as claimed in his published account of this day. And let us be clear here—had painted quarry marks actually been present on the west wall of this chamber when Vyse first entered it, we can be absolutely certain that the colonel would not have been remiss or shy in making note of such an important discovery in his private notes of that day; this would not have been an event that could easily have slipped his mind. That Vyse, in his private account, makes no mention on April 25 of such an important discovery (contrary to his published account) strongly suggests that there were, in fact, no marks present in the chamber at that time for him to comment on in his private notes, hence the complete silence here.

Given that it is simply inconceivable that Vyse could have failed, in his private journal, to have made mention of such an important discovery, we must ask the obvious questions: Why does Vyse present two quite different accounts of this particular day, and further, what is the true version of the events? What truly happened on this day in 1837, and is there anything that might help us get nearer to the truth?

Alas, Vyse's published account of the following day, April 26, barely makes matters any clearer (fig. A2.2, p. 212).

What is curious about Vyse's comments in his published account here is that he actually goes out of his way to say "hopes of an important discovery were not yet given up," thus implying that, at this date, no important discovery had actually yet been made in Nelson's Chamber (and presumably Wellington's below it). This remark also implies that Vyse did not consider the discovery of these chambers, of themselves, to be of any great significance (presumably because they contained no sarcophagus or treasure).

April 26th.

Reis, 9. Men, 71. Children, 72.

Great Pyramid.—Excavation in northern front.
——— Excavation in southern front.
——— Nelson's Chamber.
——— Northern Air-channel.
Third Pyramid.—Interior.
Fourth Pyramid.—Interior.

All hopes of an important discovery were not yet given up, and the best quarrymen were employed to get above the roof of Nelson's Chamber. I was sorry to have so few men, but the excuse, viz. the harvest, would not allow of a complaint. I sent an account of our discoveries to Mr. Hamilton.

Figure A2.2. Extract from Vyse's published account of April 26, 1837. Vyse, Operations Carried On at the Pyramids, *vol. I, 235.*

The quarry marks supposedly discovered in this chamber on April 25 (according to Vyse's published account) were only the second example of ancient Egyptian script ever found in any pyramid in Vyse's time. Such a discovery in Nelson's Chamber would have been an important discovery, and Vyse most assuredly would have understood that to be the case from the very moment he first set eyes on those inscriptions (had they truly been there). And we can be absolutely certain that Vyse *wouldd* have understood the import of these painted inscriptions because, some weeks later, on May 9, he writes in his published account:

> Notwithstanding that the characters in these chambers were surveyed by Mr. Perring upon a reduced scale, I considered that facsimiles in their original size would be desirable, as they were of great importance from their situation, and probably the most antient inscriptions in existence. I requested therefore Mr. Hill to copy them. His drawings were compared with the originals by Sir Robert Arbuthnot, Mr. Brettel (a civil engineer), Mr. Raven, and myself, and are deposited in the British Museum.[1]

As we can see, the painted characters/inscriptions in these chambers were, in Vyse's stated view, "of great importance," and so much so, in fact, that he had two separate copies of them made (one set by Mr. Perring to be used in Vyse's future book and another by Mr. Hill for the British Museum). Later still, on May 19, the colonel even arranged for a group of independent witnesses to attest to the accuracy of Hill's drawings of the inscriptions he had made from the chambers opened by Vyse up to that point.

Thus, with his casual remark on April 26, 1837, about still hoping to make an important discovery, and given his clearly expressed views on the importance of these quarry marks, it seems that the contradictory nature of these two comments appears to have Vyse inadvertently tripping himself up. The logical implication of his comment of April 26, after having just opened Nelson's Chamber and still hoping to make an important discovery, is that, by simple deduction, the discovery of the important quarry marks in Nelson's Chamber could not actually have occurred by this time, as Vyse claimed in his published account, a claim that is evidently contradicted by his private account.

By claiming in his published account of a discovery of the quarry marks when he first entered Nelson's Chamber on April 25, Vyse is merely backfilling his story. These quarry marks fill the entire length (sixteen feet and eight inches) of the chamber's west wall and so would be virtually impossible to miss, especially so given that Vyse had apparently discovered quarry marks in the chamber below and, in anticipation of finding similar marks in Nelson's Chamber, would naturally have checked the walls here extra carefully. It would thus have looked entirely suspicious of him to claim in his published account that he only found this wall full of quarry marks after three days, thus his backfill comment on April 25 in his published account. But the complete silence of such an important discovery in his private account exposes the truth of the situation: there were no quarry marks in this chamber on this first day.

Consulting Vyse's private account of April 26, matters remain just as curious.

> *26th Sent off the people, breakfast, rest, assisted surveying the great with Mr Perring & Mr Mash; &c, read, wrote to Mr Hamilton; [enclosed for] Col. Campbell, rest, read, Paid off the people, rest &c dinner, &c bed. Ibrahim came back from Cairo.*

Again, contrary to his published account, how is it possible that after two days there is not a single mention being made of the quarry marks from Nelson's Chamber in Vyse's private account? Did no one spot these quarry marks on the west wall of this chamber in these two days and mention them to Vyse (assuming here—contrary to his published claim—that Vyse hadn't actually noticed them in the chamber himself on the twenty-fifth)? There's simply nothing in the private account in these first two days relating to the discovery of quarry marks in this chamber, which is surely highly peculiar. It is not until April 27, 1837—the third day after their supposed discovery—that we first read of the quarry marks from this chamber in Vyse's private account and when we next hear of them in Vyse's published account.

As we can see in the published account (fig. A2.3), Vyse tells us that the "quarry-marks in Nelson's Chamber were copied." He does not say who copied the marks, but we know that they probably were not copied by Hill because Vyse only instructs Hill to make copies of the chamber quarry marks on May 9, some two weeks or so later. However, from his private journal of this day, we find that Vyse himself had made a copy of some of the marks in Nelson's Chamber, which we shall consider shortly.

First of all, however, it may help us here to actually familiarize ourselves with the quarry marks that were supposedly found in Nelson's Chamber; see Perring's survey drawing of them in figure A2.4.

The first thing we notice here is that these marks have been painted upside down onto two large wall blocks at

the western end of Nelson's Chamber (note the two upside-down birds, fig. A2.4, stone #1). The inscriptions on the two stones are believed to represent the names of two quarry gangs: "Pure ones of the Horus Medjedu" (stone #1) and "The Gang, the White Crown of Khnum-Khuf is Powerful" (stone #2). What is believed to be the cartouche of KhnumKhuf (left side of stone #2) is mostly obliterated. The mark on the extreme right of stone #2 may be an ouroboros (a snake eating its own tail) and is probably not related to the (partial) gang name inscription on this block. (Note: the vertical line to the left of the ouroboros sign is actually a painted red line on the block and does not demarcate a third block).

April 27th.

Reis, 9. Men, 50. Children, 52.

The same works were repeated.

The quarry-marks in Nelson's Chamber were copied. Several Arab Sheiks called. Every evening just before sunset there were strong gusts of wind, chiefly from the north and north-west.

Figure A2.3. Extract from Vyse's published account, April 27, 1837. Vyse, Operations Carried On at the Pyramids, *vol. I, 235–36.*

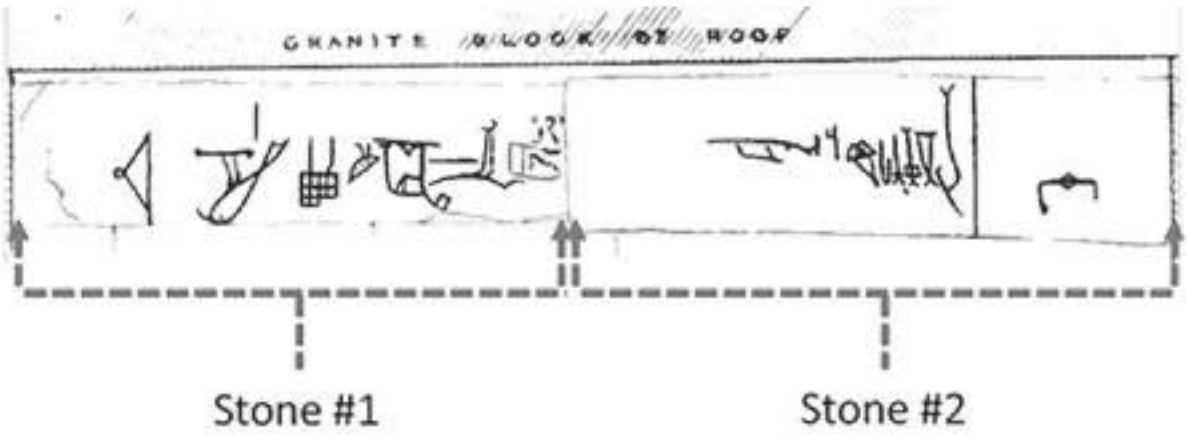

Figure A2.4. The quarry marks on the two limestone wall blocks of the west end of Nelson's Chamber. Vyse, Operations Carried On at the Pyramids, *vol. I, 285. (Drawing by Scott Creighton, based on original by John Shae Perring)*

If we now consider the events of this day, April 27, as described by Vyse in his private account, matters are not quite as straightforward as he describes them in his published version, and this raises a number of questions.

27th Sent off the people (very few came owing to the harvest). Col: Campbell's Tomb. & the Queen's Chamber, & also Belzoni's Chamber not been worked owing to the want of men for 2 days: Mr [?] worked within [at] night in Nelson's Chamber; Operations today, 1st Pyramid south, and northern sections, air supply, Nelson's Chamber, 3rd Pyramid 4th Pyramid and surveying. Breakfast, [???, ??] & [gott lost]: went into Nelson's Chamber, Mr Hill came, [ran pretests] of [letters] &c, [?] the Sheikh was inside [& drew] figures, on the western side of calcerous stones as [?] [Selin] paid the people off, dinner & bed.

As we can see from the private account of this day, Vyse seems to have had someone working in Nelson's Chamber overnight. He does not explain why this person was there or what they were doing. The name of this individual in his private journal is unclear (looks like "Mr. James") and is quite unlike any of the other regular names the colonel writes in his journal. Who was this individual, and what was he doing in Nelson's Chamber overnight? The next curious aspect of the private account here is where Vyse writes "the Sheikh was inside, [& drew] figures, [sketch of hieroglyphic signs] on the western side of calcerous stones as [?]"

If this reading is correct, a sheikh drawing hieroglyphic figures onto the west wall of Nelson's Chamber is quite an astonishing statement by Vyse in his private journal. Admittedly, the words "& drew" are uncertain here (as indicated by their placement within the brackets), and it should be said, there is another (though more vague) possible reading of them that shall be considered later. There is, however, some evidence to suggest that this particular reading, "[& drew] figures," may very well be the correct reading.

Who was this sheikh, and why was he in Nelson's Chamber at that time? In his published account, Vyse mentions only that several Arab sheikhs came by that day but makes no mention of any of them actually being inside Nelson's Chamber. Was this sheikh perhaps employed in placing these figures onto the wall of this chamber by the colonel? If so, is there any evidence that might point to such an arrangement?

From his published account, we know that Vyse had a high regard for the knowledge of some of the local Egyptians and that he took copies of the marks he allegedly discovered in these chambers to them. He wrote:

> The Shereef had got Major Felix's book on hieroglyphics, talked much about the Pyramids, and said that he had himself entered the great one. I offered to shew him Mr. Perring's drawings, and the few things of interest that had been found at Gizeh, and he appointed three o'clock for that purpose. . . . I returned at three o'clock with the drawings, &c. The Shereef was more intelligent than any Arab I had ever met with. . . . I gave the Shereef a copy of the cartouche of Suphis, and of some of the hieroglyphics found in the chambers of the Great Pyramid.[2]

But what actual evidence is there that might show that an Arab sheik was responsible for painting these marks onto the west wall of Nelson's Chamber, as Vyse's comment above—assuming a correct reading—suggests?

Comparing Vyse's journal sketch of the painted marks from this wall with Perring's drawing of the same marks (fig. A2.4), we find, somewhat bizarrely, that the colonel copied only the marks on the right side of the west wall (only those marks painted onto stone #2 in fig. A2.4). Why would Vyse have neglected to also copy the marks on the left side of the wall (the marks on stone #1)? But the more pertinent point here is that, as a Westerner, the most natural approach for the British explorer in copying the painted hieroglyphics from this wall would surely have been to commence copying them from left to right. So, once again, why does Vyse copy only the marks on the right side of this wall?

This anomaly is further emphasized if we then consider the five facsimile drawings made by Hill of the very same marks from this wall of Nelson's Chamber, where we find that he has numbered each of his drawings in such a way as to indicate to us how he had gone about copying the marks on this wall. His drawing numbering clearly indicates that he commenced his drawing of the painted marks on this wall from left to right, as we might expect a Westerner to do (fig. A2.5, p. 218).

Indeed, an examination of Hill's drawings from the walls of the other Vyse Chambers shows that he consistently began his copying work from the left side of each wall. Thus, if Hill commenced all of *his* drawings from left to right, why does Vyse draw only half of the marks on this wall of Nelson's Chamber, why only from the

second stone on the right side of the chamber wall, and why from right to left when a Westerner would naturally and instinctively have commenced copying them from left to right?

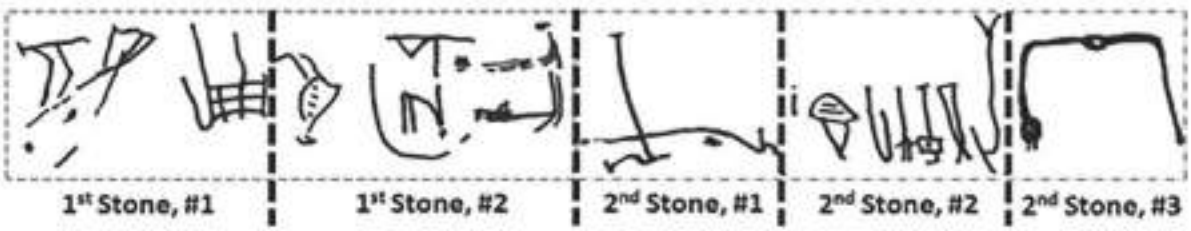

Figure A2.5. Impression of Hill's five facsimile drawings of the quarry marks on the two wall blocks of the west end of Nelson's Chamber. Note that the numbering sequence indicates Hill made his drawings from left to right. (Drawing by Scott Creighton, based on originals by J. R. Hill)

And finally, in Vyse's sketch of the marks from Nelson's Chamber, we find that he places a rather curious sign between the left and right parts of his sketch, as indicated by the arrow in figure A2.6.

This peculiar mark is not replicated by Hill or Perring in their drawings of these particular marks. We observe it only here in Vyse's journal sketch, and it makes little sense. Why place something in this journal sketch that, according to the drawings of Hill and Perring, isn't actually present on this wall block?

Upon closer analysis of this peculiar mark, I realized that I had actually seen it many times before throughout Vyse's private journal, for it appears, in fact, to be Vyse's "&" sign (though slightly incomplete on the left side). Now, it may seem a trivial point, but we have to ask: Why would Vyse have felt the need to insert this "&" sign into his journal sketch, thus effectively segmenting his sketch into two parts—a left and a right section—almost as though his own drawing here had initially been presented as two parts that were put together as one inscription? Why not simply copy the marks from the wall block into his journal as they supposedly appeared on the wall? Why the embellishment with this "&" symbol?

Is there any scenario that can explain all of these contradictions, inconsistencies, and anomalies?

Perhaps.

If we presume that Vyse found no quarry marks at all in this chamber when he first entered it (as his private journal indicates), then it seems that by the third day, April 27, he had acquired some quarry marks from a source (as yet unknown)[*45] and that these were then replicated throughout the various chambers. Vyse may have copied these source marks (gang names) from stones found among the debris outside the pyramid onto a series of small "copy cards," being careful to ensure that any longer inscriptions copied over two or more cards were carefully referenced to ensure the correct reading order was maintained. In particular, the marks we observe on the right side of the west wall in Nelson's Chamber (stone #2) may have been a long inscription on a single stone somewhere outside the pyramid, but they were copied by Vyse onto *two* small copy cards (fig. A2.7, p. 220).

Figure A2.6. Impression of Vyse's sketch of the quarry marks on the second wall block (right side) of the west end of Nelson's Chamber. Note the anomalous sign indicated by the arrow. (Drawing by Scott

Creighton, based on original by Vyse in his private journal, April 27, 1837.)

Taking our hypothetical scenario further, Vyse may then have decided, in keeping with any distribution pattern he may have observed, to have these marks copied onto the northern and southern ends of the chamber's west wall because this was of limestone construction, whereas the north and south walls were both of granite construction. In preparation for the copy job, he may have employed someone overnight to clean or otherwise prepare the west limestone wall to receive the painted marks from his series of copy cards. This preparation may have been carried out by the unknown person Vyse had working through the night of April 26–27.

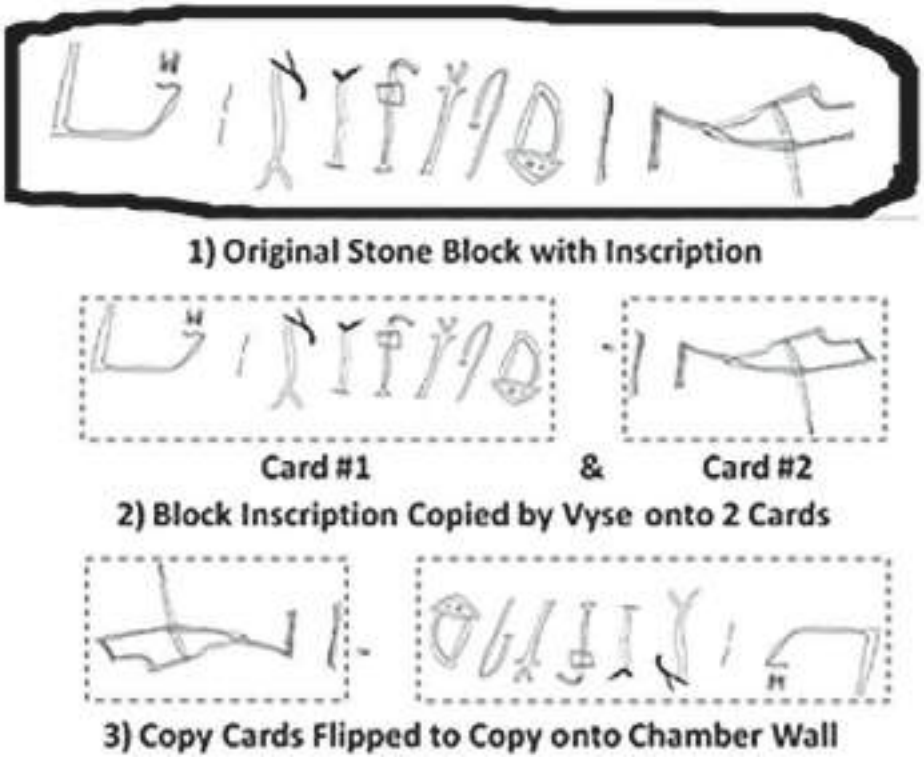
1) Original Stone Block with Inscription
Card #1
&
Card #2
2) Block Inscription Copied by Vyse onto 2 Cards
3) Copy Cards Flipped to Copy onto Chamber Wall

Figure A2.7. Postulated copy sequence of the quarry marks from an original stone block (perhaps found on stones among the debris outside the pyramid), theoretically copied onto two copy cards and finally onto the chamber wall. (Drawing by Scott Creighton)

For reasons of plausible deniability, it would have been natural that Vyse would want to keep some distance between himself and the actual paint job, so he employed a local Egyptian sheikh to undertake the actual copying and gave him his copy cards, instructing the sheikh to paint the marks onto the two wall blocks upside down in order to give the impression that the marks had been painted onto the blocks while they were at the quarry, thereby giving them the appearance of authenticity. The sheikh began his task and—being Egyptian—he naturally commenced the copy job from the *right side* of the chamber's west wall (at Hill's stone #2). (As we shall see later, there is additional evidence within these chambers that may further indicate that a local Egyptian had been used to help copy the marks into these chambers.) A short time later, Vyse visited to check the sheikh's progress and found that the right side of the west wall, where the sheikh began his copying task, was now replete with upside-down painted markings that Vyse then copied into his journal, and he departed, leaving the sheikh to finish the left side of the wall (Hill's stone #1).

This then may explain why Vyse copied only some of the text from this wall into his private journal and only that text from the right side of the wall, whereas, assuming the marks were genuinely present, we might reasonably have expected him to have copied everything and that he would have commenced his copying from the wall's left

side, just as Hill had done. And if Vyse did have inscriptions copied from stones from somewhere outside the pyramid onto two or more copy cards, then this might also explain why he placed this "&" symbol between the left and right aspects of his sketch; he is inadvertently indicating with this symbol that his original source for his journal sketch was too long to copy onto just one copy card and that it had to be copied onto two copy cards—a left "&" right card—hence the placement of the "&" symbol in the middle of Vyse's journal sketch of these particular marks.

It is impossible, of course, to prove that the scenario outlined above presents the true version of events in this chamber at that time. What *can* be said, however, is that the scenario presented here makes much better sense of the available evidence while also explaining the anomalies and contradictions that we find exist between Vyse's private and published accounts of the events at Giza between April 25 and 27, 1837.

LADY ARBUTHNOT'S CHAMBER

Lady Arbuthnot's Chamber was the third of the four chambers that Vyse blasted his way into with his gunpowder archaeology. It was named after Lady Anne Arbuthnot, wife of Sir Robert Keith Arbuthnot, a Scottish civil servant who worked with the Bombay Civil Service.

A consideration of Vyse's remarks in his published account of the opening of the four Vyse Chambers and the discovery therein of the painted quarry marks throws up a rather curious situation with regard to Lady Arbuthnot's Chamber. In the published account, Vyse writes:

> March 30th
>
> The hole into Wellington's Chamber being practicable, I examined it with Mr. Hill. . . . Mr. Perring and Mr. Mash having arrived, we went in the evening into Wellington's Chamber, and took various admeasurements, and in doing so we found the quarry marks.[3]

Comment: There are only a handful of quarry marks in Wellington's Chamber, and they were reportedly discovered (upon a second visit to take measurements) on the same day the chamber was opened.

> April 25th
>
> In the course of the day the chamber, subsequently called Nelson's, was discovered. . . . Several quarry marks were inscribed in red upon the blocks, particularly on the western side.[4]

Comment: The quarry marks in Nelson's Chamber were reportedly found on the same day the chamber was opened (according to the published account, that is).

> May 6th
>
> The chamber above Nelson's (afterwards called Lady Arbuthnot's) was opened, and in the course of the afternoon I entered it with Mr. Raven. . . . [three days later on May 9] Lady Arbuthnot's Chamber was minutely examined, and found to contain a great many quarry-marks.[5]

Comment: No quarry marks were reportedly found on May 6 but only upon a second visit three days after the chamber had been opened.

> May 27th
>
> The chamber over Lady Arbuthnot's (subsequently called Campbell's) was opened and minutely

examined. . . . There were many quarry marks similar to those in the other chambers.[6]

Comment: The quarry marks were reportedly found on the day the chamber was opened.

As can be seen from the above excerpts, Vyse's published work shows us that, with the single exception of Lady Arbuthnot's Chamber, the discovery of quarry marks was reported upon the very day each of the Vyse Chambers was opened. Given the fact that Lady Arbuthnot's has more of these painted marks on its walls than all of the other chambers combined (fig. A2.8), why then, we have to ask, did it take the colonel four days to report the discovery of a single one of them and then only after having conducted a second, minute examination of the chamber?

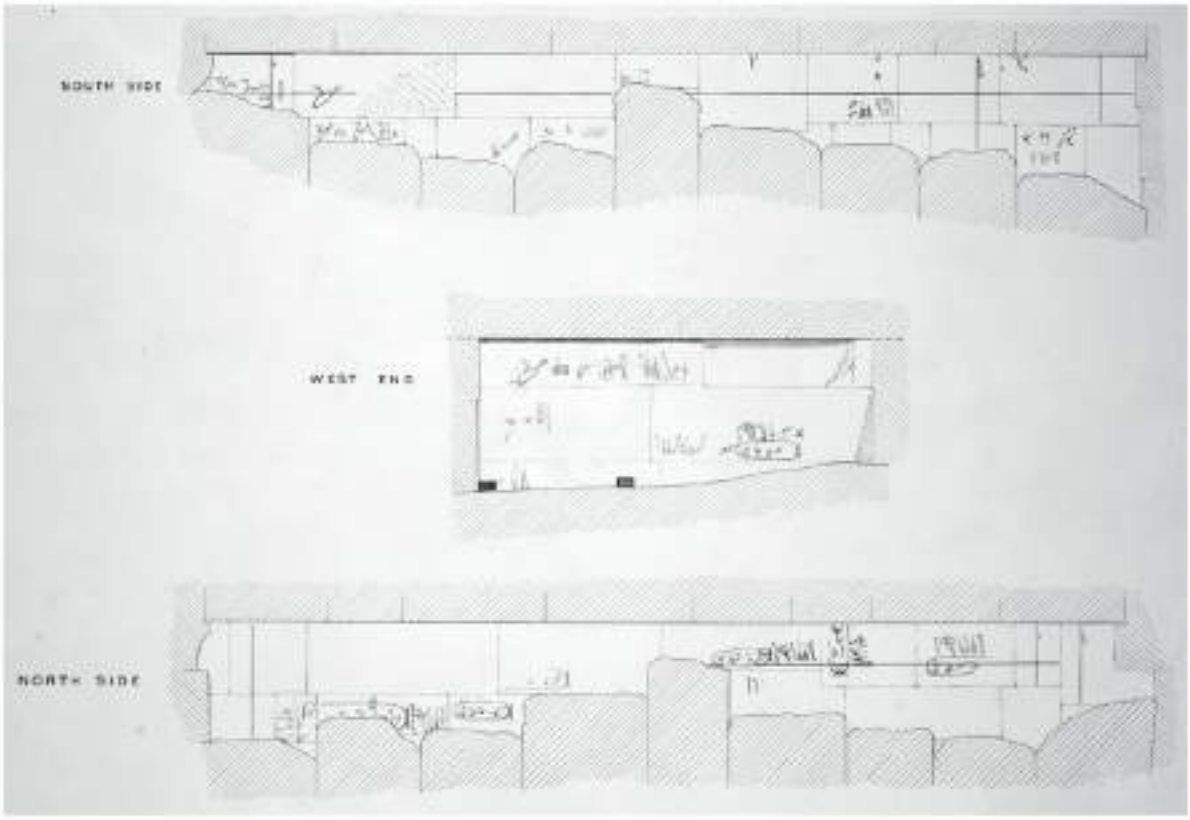

Figure A2.8. The quarry marks on the three walls of Lady Arbuthnot's Chamber. These include four full and four partial cartouches of the pharaoh Khnum-Khuf and many other hieratic signs. (Original drawing by John Shae Perring)

As was shown previously, we learn from his private account that Vyse backfilled the date of his "discovery" of the quarry marks in Nelson's Chamber in his published account by two days to coincide with that chamber's opening. If he could be so brazen as to alter this detail for Nelson's Chamber, then why didn't he do likewise in his published account for the discovery of the quarry marks in Lady Arbuthnot's Chamber? Conflating the date the chamber was opened with the discovery date of the quarry marks would surely have been as easy to do with Lady Arbuthnot's Chamber as it was to do with Nelson's Chamber, so what, if anything, might have prevented him from doing so with Lady Arbuthnot's?

As we now consider Vyse's public and private journal accounts of the events surrounding the opening of Lady Arbuthnot's Chamber and the obvious delay in the reporting of the painted quarry marks therein, we may come to a rather surprising conclusion.

Analysis of Published vs. Private Accounts

Lady Arbuthnot's Chamber was opened on May 6, 1837, and the moment of entry into the chamber is described in Vyse's official account thus:

> May 6th
>
> The chamber above Nelson's (afterwards called Lady Arbuthnot's) was opened, and in the course of the afternoon I entered it with Mr. Raven. We found this apartment of the same description, and nearly of the same dimensions as the others below it, being thirtyseven feet four inches by sixteen feet four inches. Like the rest it was quite empty, and built in the same manner, but with less care, and with a greater proportion of calcareous stone on the north and south sides. The excavation was continued, in order to get above it. In the evening I returned to Cairo with Mr. Perring and Mr. Mash.[7]

Notice in the above passage from Vyse's published account of this day, May 6, the complete absence of any mention of painted quarry marks having been discovered on the walls of this chamber. And we can be absolutely certain that this wasn't a mere oversight in Vyse's recollection of the events of that day (as if it were even possible to so quickly forget a discovery of such importance), because three days later, he writes the following in his published account:

> May 9th
>
> Lady Arbuthnot's Chamber was minutely examined, and found to contain a great many quarry-marks.[8]

With this entry, Vyse effectively confirms that the painted quarry marks on the walls of Lady Arbuthnot's Chamber were first "discovered" three days later, on May 9, after a second, minute examination of the chamber had taken place and that he hadn't simply overlooked making mention of their presence in his published journal entry of May 6. In short, the quarry marks in this chamber had, it seems, gone entirely unnoticed by Vyse and Raven during the initial visit to this chamber and apparently required this second visit three days later, on May 9, to discover them.

The first person to read Vyse's published account and make mention of this inordinate delay in the reporting of quarry marks in Lady Arbuthnot's Chamber was the international bestselling author and historian Zecharia Sitchin. In his book *The Stairway to Heaven*, Sitchin writes, "On May 7, the way was blasted through into one more chamber above Nelson's, which Vyse temporarily named after Lady Arbuthnot. The journal makes no mention of any quarry marks, although they were later on found there in profusion."[9]

This breaching of Lady Arbuthnot's Chamber actually occurred on May 6 and not May 7, as Sitchin states. More importantly, in this short passage, Sitchin is drawing our attention to the delayed discovery of the quarry marks, seemingly implying that since there is no mention of the quarry marks in Vyse's initial published entry of May 6, the colonel had not yet had time to place any fraudulent marks into this chamber. Although Sitchin might have chosen to pursue this question further, he did not provide more detailed evidence for his allegation.

There is a bigger, more obvious, and pertinent question here that needs to be properly addressed and plausibly answered by those who insist that the quarry marks Vyse claimed to have found in these chambers are genuine ancient artifacts. To understand this question, let us assume here that the painted marks in Lady Arbuthnot's Chamber are indeed genuine and that they *were* present on the chamber walls prior to Vyse blasting his way in on May 6, 1837. As mentioned above, this chamber presents (by some considerable margin) the largest amount of painted quarry marks of any of the four Vyse Chambers. Indeed, as previously noted, there are possibly more painted quarry marks in Lady Arbuthnot's Chamber than all of the other chambers combined. Most of the painted marks here are large (each between twelve and eighteen inches tall, the cartouches between twenty-four and thirty-six inches wide). They are also bold, run the full length of three walls, and yet, astonishingly, neither Vyse nor Raven seem to have observed a single one of these red ochre marks (around 120 of them), including four fully formed and four partial royal cartouches, during their initial inspection on May 6, the day this chamber was breached. Did these two men fail completely to notice any of the painted marks at this time thus explaining the

absence of a report of their discovery on this date?[*46]

If that is the explanation, then just how feasible is it that both Vyse *and* Raven could have entirely missed seeing any of the large, bold quarry marks that we observe today on its walls? In Vyse's published account, we learn that during the initial inspection on May 6, 1837, he and Raven were able to observe a number of features of Lady Arbuthnot's Chamber.

1. It was empty. (There was no secret Khufu burial.)
2. It was constructed with less care than the chambers below.
3. It had more limestone wall blocks on its north and south sides than the other chambers below.
4. Its dimensions were similar to the other chambers below.
5. There was another chamber above. (To determine this, Vyse would have to have spent some time inside the chamber looking for a gap between the ceiling blocks to slip a long reed through. If the reed went all the way through, then he could be sure there was another chamber above.)

And yet, despite all the observations made in this chamber on May 6, both men seemingly managed to overlook around 120 painted quarry marks on the chamber walls, including a total of eight royal cartouches, the most cartouches in any of these chambers and certainly the most obvious royal cartouches found up to that point. What we have to keep in mind here is that by this time in his operations at Giza, Vyse had already breached two similar chambers below (Wellington's and Nelson's) and had allegedly discovered painted quarry marks on the walls of those chambers, reporting each "discovery" (in his published account) immediately afterward. Given this, it is surely not unreasonable to suggest that these two pyramid explorers would have been fully anticipating a similar discovery on the walls of this third chamber and, as such, would have been actively scrutinizing the walls there for further quarry marks in the hope of finding another royal cartouche (the one previously found in Wellington's was fairly sketchy) and thereby giving Vyse the important discovery he had hoped for. But from Vyse's official account, both men apparently saw nothing; not a single mark was reportedly found during their first inspection. How could that possibly be?

It has been suggested that perhaps the lighting the men used was too poor. However, this is simply not a credible explanation because the two explorers would have used similar lighting (candles or oil lamp) when inspecting the chambers below and were seemingly able to find the much smaller number of quarry marks in those chambers on the very first day of exploration (according to Vyse's published account). Furthermore, the two men were quite able to take measurements of Lady Arbuthnot's Chamber, which would have required them to be able to read their measuring rods and note down the results, so if they could have read the measuring rods (with their much smaller markings), why couldn't they have seen any of the much larger painted markings on the chamber walls during this measuring activity? Indeed, in his discovery of the painted marks in Wellington's Chamber, Vyse tells us in his published account:

> March 30th
>
> Mr. Perring and Mr. Mash having arrived, we went in the evening into Wellington's Chamber, and took various admeasurements, and in doing so we found the quarry marks.[10]

They found the painted quarry marks (just a handful) in Wellington's Chamber during the course of measuring that chamber, the very same activity they were doing in Lady Arbuthnot's Chamber. So, again, how is it possible that Vyse and Raven could both have missed over a hundred large painted marks on the walls of Lady Arbuthnot's Chamber when he and his men had been carrying out a near identical task of measuring the chambers like those below and, as stated, when they would surely now have been fully anticipating such marks being present on the walls?

Some have suggested that the chamber was filled with dust (from blasting), which perhaps covered the walls, making it difficult to see any of the painted marks (and thus difficult to breathe also). But the wall surfaces of this chamber would have been little different from the chambers below after blasting, and, as already noted, given the previous discoveries, even if the walls of Lady Arbuthnot's Chamber had somehow been coated with a layer of dust,

the two men would surely have been actively clearing it away, trying to see if there were any quarry marks underneath. And in any case, from what Vyse tells us, we can immediately discard this notion because, in his later published writings concerning Campbell's Chamber (the final chamber, immediately above Lady Arbuthnot's), the colonel writes:

> May 27th
>
> When we first entered this chamber, the floor was covered with the same deposit of dust which we had observed in the apartments below it, and, in addition, the calcareous stones were covered with an exudation, which had the appearance of white feathers, and resembled that afterwards found in the Third Pyramid. There were many quarry marks similar to those in the other chambers.[11]

According to Vyse, this white feathery exudation was not covered with black floor dust and neither the wall exudation nor the floor dust prevented him from observing the quarry marks in this chamber on the very day it was opened. Furthermore, Vyse specifically tells us where else this wall exudation had occurred: "in the Third Pyramid." He makes no mention of such detritus on any of the walls in any of the other Vyse Chambers below. On this basis, we have to discount dust or other detritus, though it may have been present, as a possible barrier to Vyse and Raven from observing the quarry marks on the wall blocks of Lady Arbuthnot's Chamber.

One other possible reason suggested for the apparent oversight of both Vyse and Raven is that the men were in a hurry, so much so that they missed all the quarry marks on the walls. Again, this is a barely credible explanation. With only three feet between floor and roof, the two men would have spent all of their time in this chamber on their hands and knees, crawling through it to measure its dimensions, and, as such, they could hardly have been going so fast that the walls would have been a blur to them. In addition, we know that upon finding this chamber empty, Vyse immediately ordered that his men begin excavating above it, which implies he knew at that point that there was another chamber above Lady Arbuthnot's. He could only have come to know this by being inside the chamber and pushing a long reed through a gap into the chamber above, a process that, again, would have taken time (along with measuring the chamber), which also supports the view that the air could hardly have been choked with dust; the men were able to properly breathe during these time-consuming activities.

Others have suggested that Vyse simply wasn't interested in the quarry marks or their importance, hence, why he neglected to make any mention of them in his private journal after the initial chamber inspection with Raven. Once more, this suggestion simply does not stand up to scrutiny.

On the very day that Lady Arbuthnot's Chamber was breached, Vyse had been at the temple of the pyramid of Khafre, copying hieroglyphic signs from the temple blocks there precisely *because* he understood their importance. Indeed, throughout his entire published work, Vyse presents numerous examples of hieroglyphic signs he had observed and copied from the walls of various temples and tombs and, indeed, from some stones among the rubble on the north and south sides of the Great Pyramid itself. With regard to the quarry marks in general, Vyse later writes in his published account:

> May 9th
>
> Lady Arbuthnot's Chamber was minutely examined, and found to contain a great many quarry-marks. Notwithstanding that the characters in these chambers were surveyed by Mr. Perring upon a reduced scale, I considered that facsimiles in their original size would be desirable, as they were of great importance from their situation, and probably the most antient inscriptions in existence. I requested therefore Mr. Hill to copy them.[12]

From this statement, it is self-evident that Vyse understood the importance of the painted quarry marks he had allegedly found in these chambers. And with specific regard to the royal cartouches of the king, Vyse well understood their paramount significance, for in his published account (some three days before he first entered Lady Arbuthnot's Chamber on May 6) he writes:

May 3rd

> I examined the rocky ground to the westward of the Great Pyramid, and the tombs and buildings to the north of the Second. Foundations might everywhere be traced under the sands; and shafts lined with unburnt bricks, amongst which probably a cartouche might be found, which would determine the date of the constructions. . . . Much information might possibly be obtained from the cartouches on the bricks in the various ruins in Egypt.[13]

Thus, from his published writings, it is clear to see that the colonel well understood the importance of the quarry marks being discovered within these chambers in general and the critical importance of finding a royal cartouche among them that could potentially impart useful information that might help date the pyramids. All of which comes back to the same obvious question, Why would it have required a minute examination to finally find and report so many large, boldly painted signs in Lady Arbuthnot's Chamber, especially given that their presence would almost certainly have been fully anticipated by Vyse even before this chamber was blasted open?

All things being equal—and Vyse offers nothing in his published or private accounts to suggest otherwise—these painted quarry marks should easily have been observed by these two men during their initial inspection of this chamber on May 6 and this important discovery reported by Vyse on that date. For Vyse to imply that both he and Raven completely overlooked all of these painted marks during their initial inspection of Lady Arbuthnot's Chamber and that they were found only after a second, minute examination three days later simply makes no sense and surely stretches credibility to breaking point.

Frankly, that Vyse could even consider that any rational person could ever consider such an account plausible (let alone probable) is insulting to the intelligence of all objective people. Only those lacking in critical thinking and analytical skills could possibly conceive of Vyse's account of May 6 as being even remotely plausible, let alone credible. In all probability, however, Vyse was likely aware that this aspect of his account was less than convincing, but as we shall shortly see, it seems that events somewhat conspired against him, which meant, ultimately, that there was precious little he could do about this incredibly weak aspect of what, in effect, amounts to a cover story, a very weak cover story at that. All he could hope for was that this glaring anomaly in his published work would go unnoticed, hoping perhaps that his fudging of the events over these five days would be enough to gloss over this gaping chasm in his official account of the events at Giza in early May 1837.

But when something lacks credibility, when it so blatantly assaults and insults our logic and common sense, it is often a sure sign that there's something deeper going on that is, as yet, unseen or undetected, and this situation, as presented in Vyse's published account, sorely smacks of an attempted cover-up of something, a massaging of the actual events in order to hide a deeper, more sinister truth.

But what?

In order to answer this question, we must now focus our attention on Vyse's *private* account of these few days of his explorations at Giza, beginning with the pivotal day, May 6, 1837.

S. 6

> *. . . Mr Raven returned from the Great Pyramid, and was pleased we were ready for a look into the room above Nelson's, we then paid the people off &c, Mr Raven, Mr Perring, Mr Mash, & myself came to Cairo, I took a bath & dined with Mr Brettel, & robed Armenian Effendi who had been educated in England, & who spoke good English.*

And that is it. In this original version of the events of this day, there is no mention of Vyse or Raven actually entering Lady Arbuthnot's Chamber at all, only that they "were ready for a look into" the chamber, which, of course, indicates that the chamber had indeed been opened on May 6. But there is no mention in the private journal at all of Vyse or anyone else actually being inside the chamber, nothing of this chamber's poorer workmanship, or any details of the measuring of the chamber that Vyse tells us in his published account took place on this first day. That said, it may well be that Vyse and Raven did enter the chamber on this first day, but of what occurred once inside, the private journal falls completely silent.

If we consider that Vyse had not, in fact, entered the chamber on this day with Raven, then that may well go some way to explaining why his published account (and also his private account) fails to mention the discovery of any quarry marks on this day. However, if that were the case, then why mention *anything* about this chamber at all on this day in his official account if he had not actually entered the chamber? Why fabricate an account of a visit if such a visit had never actually taken place? Why not simply stick to the truth of what actually happened at Giza on this day in 1837?

Continuing with the scenario that Vyse had not entered the chamber on May 6 and that he was perhaps merely backfilling the events of later dates to this day for his published account, then why not backfill the discovery of the painted quarry marks also to that first day? After all, we observe that Vyse did precisely that for the alleged discovery of the quarry marks in Nelson's Chamber, where it is clear from the private account that the quarry marks in Nelson's are first mentioned on the third day after that chamber had been opened, and yet, in the published version, Vyse backfills the account and tells us he discovered the quarry marks in Nelson's Chamber on the very day he first entered it. So, again, why not simply do the same with Lady Arbuthnot's Chamber? Why backfill *some* of the story (wall blocks, poorer workmanship, chamber measuring, and so on) but leave out the most important discovery of all—the quarry marks? It makes little sense.

It rather seems that, in all probability, Vyse and Raven most likely did enter Lady Arbuthnot's Chamber shortly after it had been breached on May 6, 1837, and carried out the tasks therein as described in the later published work, though not mentioned in the private account. As we see from comments elsewhere in his book, Vyse would undoubtedly have desired to have been the first to enter each of the newly breached chambers, to have been the one to make the discovery of all discoveries— Khufu's true sepulchral chamber, a truly important discovery that would have immortalized Vyse's name in the annals of world history. Given this, then Vyse most certainly would not have wanted such a potentially historic discovery to be claimed by anyone but himself and, as such, would have gotten himself into each compartment the moment it had been breached to establish if it was indeed Khufu's true burial chamber (with all its attendant treasure). Primacy of discovery was as relevant and important in 1837 as it is today.

From Vyse's private and published accounts, we know that he went to Cairo on the evening of May 6 and returned to Giza two days later, in the afternoon of May 8. From these accounts, there is no mention of Vyse entering Lady Arbuthnot's Chamber upon his return to Giza on May 8, and we further learn from his private account that he did not visit the newly opened chamber on May 9, either.

T. 9

. . . Mr Raven, and Mr Hill have gone into Lady Arbuthnot's Chamber, I should have done the same, but I am unwell, and I know that I must go tomorrow.[*47]

W. 10

. . . Sent off the people (100 men came) had [?], wrote to Mr Brettel; (hot weather) Sir Robt. & Lady Arbuthnot went to the pyramid;

Although Vyse states in his private account of May 9 that he "must go [to Lady Arbuthnot's Chamber] tomorrow" (presumably as host to the visit to the pyramid by the Arbuthnots), it seems his esteemed guests visited the monument on May 10 without Vyse being present, he having remained behind, possibly still unwell.

And so, between the dates of May 7 and 10, we can be virtually certain that Vyse made no visit to Lady Arbuthnot's Chamber. During this period, we also know for certain that Raven and Hill *did* go into this chamber (Hill a couple of times) and possibly also Perring, the Arbuthnots, and "Mr. Fitzgerald" (Lady Arbuthnot's brother). In other words, had Vyse not inspected the chamber on May 6, when it was first blasted open, then he would have been leaving any potentially massive discovery for a number of others to make.

In summary then, if Vyse wanted to lay claim to what would surely have been the discovery of all time—Khufu's true burial—then the date of May 6, when the chamber was first opened, was his best and seemingly only opportunity to have done so. And given that Vyse would have known that he would be detained in Cairo for at least a couple of nights, then it stands to reason that he simply must have entered Lady Arbuthnot's Chamber on May 6,

and that is, of course, what he tells us happened in his published account (and implied in his private account).

All of which brings us full circle. Accepting Vyse's published account that he and Raven *did* enter and explore Lady Arbuthnot's Chamber on May 6, why then did Vyse fail to make any mention on this date of the numerous quarry marks we see today on the walls of this chamber when it would surely have been virtually impossible for two explorers to have missed them? And even if Vyse did find these marks some days later (as his published account tells us), why not simply backfill the published narrative to say that he *had* found the marks upon the first inspection (as he has evidently done with Nelson's Chamber)?

As we know, the painted marks in this chamber are numerous, bold, and large (each approximately twelve to eighteen inches tall). Would it really have required a further minute examination of this chamber by potentially three men in order to discover such marks? One man methodically working his way around the chamber, inspecting the walls and making copies of what was found, would surely have sufficed for this purpose. And that is exactly what Vyse tasked Hill with—to copy each of the quarry marks on a one-to-one scale from all the chambers. In this regard then, Raven's presence in the chamber along with Hill on May 9 seems somewhat superfluous, as would Vyse's presence have been (had he not taken ill).

Unless, of course, we consider the elephant-in-the-room scenario— that no marks were discovered at all during the initial inspection on May 6 because no quarry marks were actually present on any of the chamber walls when the chamber was first opened, and that is the real reason for the complete silence on this matter in Vyse's private and published accounts of this day. In this scenario, it becomes perfectly understandable that it would require a second visit of two or three men to prepare and paint so many markings onto the chamber walls, especially if time was of the essence—which it would have been given that the Arbuthnots were planning to visit the Great Pyramid and possibly Lady Arbuthnot's Chamber the following day. Thus, when the colonel writes in his private journal of Raven and Hill going into Lady Arbuthnot's Chamber (which, remember, he also wanted to do but was unwell), it perhaps wasn't to minutely examine the chamber walls for the quarry marks that Vyse and Raven had bizarrely managed to overlook the first time around, but rather to check on and assist Vyse's Egyptian worker (who had probably been tasked with this job prior to Vyse departing for Cairo) prepare and paint fraudulent marks onto the chamber walls before the arrival of the Arbuthnots. And this visit of the Arbuthnots to the Great Pyramid (they arrived at Vyse's encampment on the evening of May 9, 1837) was to be pivotal to Vyse's machinations, machinations that would shortly backfire on him in quite dramatic fashion.

A Practice to Deceive

From both of Vyse's accounts (private and published), it is plainly clear that Lady Arbuthnot's Chamber had been breached on May 6 (fig. A2.9). However, the chamber's dedication inscription to Lady Arbuthnot, which was painted onto the chamber wall by Hill, contradicts this May 6 date and actually gives the chamber's opening date as having occurred three days later, on May 9 (fig. A2.10, p. 236).

To be clear, this date of May 9 does not reflect the date when Hill actually painted the inscription itself, but, just like the dedication inscriptions in the other chambers, it states the chamber's *opening date*. We can be certain of this since it was confirmed by Hill in no less than six of his facsimile sheets from this chamber, in which he writes on each sheet, "opened on the 9th of May 1837." Furthermore, these facsimile sheets were duly signed by a number of witnesses, including Sir Robert Arbuthnot, Raven, Hill, Brettel, and even Vyse himself, all testifying to this May 9 opening date. Here then we have a glaring contradiction as to when this chamber was actually opened: both of Vyse's journals tell us May 6 (as does Perring's account), but Hill has written May 9 on the chamber wall and also on no less than six of his verified facsimile drawings. Something is clearly afoot here.

INSCRIPTIONS.

Great Pyramid.

Basement stones -	Excavated 1837.
North-eastern excavation	—
North-western excavation	—
Northern air-channel -	Opened May 22d, 1837.
Southern air-channel -	— May 29th, 1837.
Wellington's chamber -	Wellington's chamber, March 30, 1837.
Nelson's chamber -	Nelson's chamber, April 25, 1837.
Lady Arbuthnot's chamber	Lady Arbuthnot's chamber, May 6, 1837.
Col. Campbell's chamber	Col. Campbell's chamber, May 27, 1837; H. Raven and Hill.

Figure A2.9. In the "Inscriptions" entry for the Great Pyramid in Vyse's published account, he misreports the date given within the inscription in Lady Arbuthnot's Chamber as May 6, 1837.

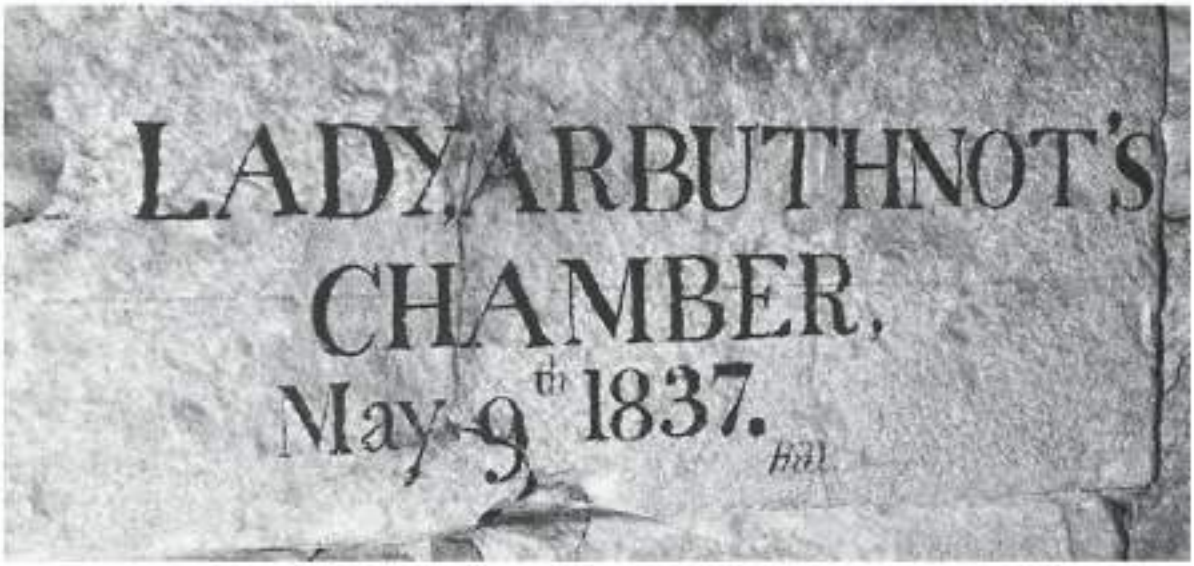

Figure A2.10. The dedication inscription in Lady Arbuthnot's Chamber. The actual date in the chamber is given as May 9, 1837, contradicting Vyse's private and published accounts. (Photo courtesy of Patrick Chapuis)

So what's going on? It is evident that Vyse saw Hill's date of May 9 on the chamber wall during the attestation of the chamber marks that took place on May 19, so why does the colonel contradict this date by stating in his later published account that the dedication inscription reads "Lady Arbuthnot's chamber, May 6, 1837," when evidently it does not say this? Why did Vyse, upon seeing this contradiction painted onto the chamber wall and Hill's facsimile sheets, not instruct Hill to correct this date? Indeed, why should such a glaring contradiction even exist at all between these various documented sources? Why did Perring (in 1839) and Vyse (in 1840) claim an opening date of

May 6 while the chamber's dedication inscription and Hill's facsimile drawings state May 9 as the opening date? Why such a blatant contradiction?

What we may actually be observing here is but yet another calculated attempt by Vyse to manipulate events at Giza, just as he had previously conflated and fudged the dates of Nelson's Chamber. In this instance, however, Vyse was not (at least initially) attempting to backfill the events to the earlier date of May 6 as being when the chamber was actually opened but, rather, was attempting to shift the opening date of the chamber (and the claimed discovery of the painted marks therein) *forward* in time by three days to May 9, and for a very specific reason.

The colonel, naturally, would have wanted it to be known that the discovery of the painted marks in this chamber occurred on the very same day the chamber was opened because, during any initial exploration, he would have realized that such an obvious oversight by two men would surely have raised some eyebrows and probably some awkward questions. As such, the three-day time lag between the chamber's actual opening and the discovery of the painted marks needed to be compressed (read: vanish), and Vyse's solution was to shift the date of the chamber's actual opening, moving it a few days forward in order to give himself time to have the quarry marks painted into the chamber by his Egyptian worker (with Raven and Hill likely complicit in this nefarious activity). And, naturally, as part of his plan, Vyse would have instructed Hill to place the dedication inscription with the date of May 9, 1837, on the chamber wall to show to the world that *this* was the date the chamber was opened (as opposed to the true date of May 6) and that this May 9 date was also the date that a "great many quarry-marks" therein were also discovered. Awkward time gap gone.

To be absolutely clear here, the wording of the dedication inscription placed in Lady Arbuthnot's Chamber would have been wholly the responsibility of Vyse—not Hill. This chamber was Vyse's discovery. The naming of each chamber was entirely his prerogative. And the text of the dedication inscription would also have been his prerogative. It is simply inconceivable that the colonel would have delegated the wording of the chamber's dedication inscription to Hill. Vyse would have totally called the shots on this, deciding exactly what text, including the date, was to be placed on the chamber wall.

Consider then that Vyse's published account tells us (without any indication whatsoever that he had actually altered this date) this chamber was opened on May 6, 1837. There is no question or ambiguity about this: this chamber *was* opened on May 6. And yet Vyse, for some reason, instructed Hill to change this date to May 9, 1837, in the chamber's dedication inscription. This, right here, is a complete fabrication, an outright lie. This, right here, is clear proof of Vyse knowingly and surreptitiously misreporting actual facts. This, right here, is clear evidence of an attempt to conceal his botched deception. There is simply no getting around this. Vyse instructed Hill to paint a false opening date onto the wall of Lady Arbuthnot's Chamber (see fig. A2.10), a false date that can be observed in this chamber to this very day.

Critics will undoubtedly respond to this by suggesting that Hill somehow got muddled and painted the wrong date onto the chamber wall. While that remains a possibility, it is highly unlikely for a number of reasons.

1. This was an important piece of text that Hill was placing on this wall—the chamber's dedication inscription! Is it realistic to believe that Hill could get something so important so wrong?
2. If Hill had made a simple mistake by painting a "9" instead of a "6," then it would have been easy enough to correct, but it wasn't corrected and Hill's "error" remains on the chamber wall to this day. Furthermore, if Hill had been using stencils for his inscriptions (not unlikely), then the very fact that a "9," when inverted, can become a "6" would have made it all the more likely that he would have been extra careful with this particular number, ensuring that he had it the correct and desired way up before painting the number.
3. Is it really likely that Hill and Vyse somehow managed between them to come up with the wrong chamber opening date when that event had occurred only a few days earlier? The date this inscription was actually painted onto this wall by Hill also happened to be May 9. As such, in painting the opening date (that day's date) onto the wall, Hill would surely have known that this chamber had not been opened that *same day*, but rather three days earlier (when he would have been in Cairo at the time), and yet, for some unfathomable reason, he ignored that glaring chronological disparity and continued to paint "May 9th" onto the wall rather than the earlier true opening date of May 6.
4. Hill specifically wrote May 9 as the chamber opening date on six of his facsimile sheets (the accuracy of which was attested to by Vyse and other witnesses).
5. Hill, whom Vyse describes as "a very intelligent person," appears throughout Vyse's operations at Giza to have

been a thoroughly dependable man, having made no mistakes of any kind with the dedication inscriptions in any of the other chambers.

On the balance of probability then, it does seem that Hill painted onto the wall the dedication inscription he would have been instructed to paint. There was no mistake, and he painted the inscription exactly as it would have been given to him. And so, May 9, 1837, was to be the date that Vyse planned to tell the world that Lady Arbuthnot's Chamber was first opened and when the painted quarry marks were found on its walls. Thus, in this planned scenario, there is no problematic time lag that needed explaining between the date the chamber was opened and the date the quarry marks therein were discovered. In this scenario, there would have been no mention whatsoever in the colonel's future published account of the actual truth (i.e., that the chamber had, in fact, been opened three days earlier on May 6 and that no quarry marks had been found in the chamber on that date). It was not intended that any of this be known, and, had everything gone to plan, the true opening date of this chamber, May 6, would have been entirely expunged from Vyse's official account.

And so, everything was in place, and the colonel's plan was nicely coming together. The chamber was now ready for the visit of Sir Robert and Lady Arbuthnot the following day, and, naturally, with the chamber being named in honor of Lady Arbuthnot, it would have been quite likely that these esteemed guests of Vyse would have desired to see inside this chamber. The perfect witnesses.

But the best-laid schemes o' mice an' men, often go awry. Vyse's carefully crafted deception was about to unravel and the truth of his mendacity exposed in quite spectacular fashion.

The Wheels Loosen

Intriguingly, Vyse's fraudulent activity at Giza was apparently witnessed by one of Vyse's workers, a man named Humphries Brewer.[*48] Brewer wrote letters back to his family in England about his travels through Egypt and the Holy Land and, it seems, about his time working with Vyse at Giza. Brewer eventually emigrated to the United States, and the letters he had written to his parents were apparently passed down the family line (presumably after the death of Brewer's parents). While researching his family history with his mother and some elderly aunts in 1954, Walter Allen of Pittsburgh, Pennsylvania (Brewer's great-grandson), came to learn of his great grandfather's time with Vyse at Giza and recorded the details of the family discussion in his ham radio logbook at the time. In these notes, Allen recounts the following story of his great grandfather's time with Vyse at Giza: "He joined a Col. Visse exploring Gizeh pyramids. Rechecked dimensions 2 pyramids. Had dispute with Raven and Hill about painted marks in pyramid. Faint marks were repainted, some were new. Did not find Tomb . . . had words with a Mr. Hill and Visse when he left."

The statement in the short passage seems clear enough. Allen's great grandfather, Humphries Brewer, worked for Vyse at Giza and, at some point, seems to have had a dispute with Raven and Hill, Vyse's two closest assistants. About what? This seems equally clear—about painted marks in the pyramid. Some of these painted marks, we are told, were repainted while others were new. This statement from Allen's notes is about as clear an inference of fraudulent activity occurring at Giza as one could hope to obtain short of it being explicitly and unequivocally attested by Vyse himself. Soon after this incident, it seems that Brewer was dismissed by Vyse (and presumably permanently banned from the site), whereupon he continued on his travels to the Holy Land, but not before having some choice words with Vyse and Hill prior to his departure.

Even though Allen's logbook page bears elements that would have been very difficult for a hoaxer to have known (thus imbuing the account's authenticity with a high degree of confidence), typically, crtics of the account point out that there is no mention in any of Vyse's published volumes of Brewer ever having been in the colonel's employ, implying that he had never actually worked with Vyse at Giza at all and thus could never have witnessed any fraudulent activity there. Without Brewer's original letters to corroborate his great-grandson's later logbook account, the critics insist that this evidence from Allen is, at best, hearsay and, at worst, itself fraudulent. In their view, with no corroboration of the story, Allen's account becomes inadmissible to the debate.

But, of course, Brewer's original letters (which appear to have been lost sometime after 1954) are not the only place we should be looking for corroborating evidence of Allen's story. If such an incident really had occurred at Giza in 1837, then it is highly unlikely indeed that Vyse would have made any mention of it in his published work,

for to have done so, if he could not disprove the allegation, would have fatally undermined his word on the authenticity of the Khufu cartouches he claimed to have discovered within the Great Pyramid, something the colonel would, naturally, have wished to avoid. However, while Vyse, understandably, may have entirely expunged such an unpleasant event and the antagonists involved in it from his published volumes, he may not have been so concerned in doing so with his private account, an account that was, after all, for his eyes only. So is there anything in Vyse's private notes that might lend support to Allen's logbook account?

Vyse's private field notes (his daily diary of events at Giza) consist of around six hundred foolscap pages covering the period from December 1835 to August 1837. The pages most likely to mention the Humphries Brewer incident would, logically, be found in the period when the colonel was blasting open the four Vyse Chambers, from March 30, 1837, to May 27, 1837—a period of around eight weeks. However, given that Lady Arbuthnot's Chamber contains more quarry marks than all of the other chambers combined, it is reasonable to further suppose that if any fraudulent activity had been occurring in the Great Pyramid during this eight-week period, then it is more likely to have been witnessed shortly after the opening of this particular chamber (between the dates of May 6 to May 10, 1837). The logic here is simple: more forged chamber marks require more preparation time, need more paint, more chamber visits, and generally more journeying back and forth to this chamber by the forgers—all of which add up to an increased probability of any fraudulent activity being spotted and witnessed by a third party between those particular dates. After checking Vyse's private notes, we find that these five days amounted to just three foolscap pages—a considerably less arduous task to check, especially given the very difficult nature of the colonel's handwriting.

So what, if anything, is present within these three pages of Vyse's private notes between these specific dates of May 6 to May 10, 1837, that might point to fraudulent activity within Lady Arbuthnot's Chamber? Is there any corroborating evidence in Vyse's private account from these critical days at Giza—these three pages—that might lend support to Allen's story about his great-grandfather calling foul on forgery within the Great Pyramid and being subsequently dismissed by Vyse?

Quite remarkably, it would appear that such an account is indeed present in Vyse's private journal during this very time frame. However, as is typical when transcribing the colonel's incredibly difficult handwriting, it comes with something of an unexpected twist to the account relayed to us by Allen.

Witness M: The Truth Erupts

On May 9, after the arrival of the Arbuthnots to Vyse's encampment, Hill is sent with an inkpad up to Lady Arbuthnot's chamber, presumably to paint the chamber's dedication inscription onto the chamber wall (and probably also to make facsimile copies of the fake inscriptions that had been placed there earlier).

> *T. 9*
>
> *. . . Sir Robert & Lady Arbuthnot, & Mr Fitzgerald arrive, &c talked, dined, &c Mr Hill went up to copy the inscription[s] in Lady Arbuthnot's Chamber &c; had inkpad in the sack, Mr Hill [returned from] the pyramid, the [name] is very curious, I now recollect that Prince Muskau [Pückler] said that we should find an inscription in our apartment.*

Upon his return from this task in Lady Arbuthnot's Chamber it seems that Hill then told Vyse that someone (the name used here in the private journal is unclear) was "very curious." What was this individual curious about? Alas, Vyse doesn't say. However, the colonel's very next thought, his very next sentence, may be instructive in this regard when he writes, "I now recollect that Prince Muskau [Pückler?][*49] said that we should find an inscription in our apartment."

Linking Vyse's thought stream here, it seems then that someone was "curious" (suspicious?) about "inscriptions" in one of the chambers[*50] (presumably Lady Arbuthnot's) and seems to have relayed his concerns to Hill who subsequently relayed them to Vyse. That was the end of Vyse's private journal entry of that day, May 9, 1837. It was the calm before the storm for this, it seems, wasn't the end of the matter for this curious individual. The very next day his name appears again, exploding onto the pages of the colonel's private journal and, almost

certainly, this person laid waste Vyse's carefully planned deception. On this day, May 10, the colonel writes:

> *W. 10*
>
> *. . . breakfast, I sat out here, Sir Robert & Lady Arbuthnot sat in [their] tent, Mr Perring, & Mr Mash came; rest, [name] quarreled with Mr Raven, I discharged [name], &c, paying him by a receipt received & bills for him to sign, walk with Sir Robert & Lady Arbuthnot, &c, dinner, &c bed.*

Here then we have someone in Vyse's employment, an individual who was seemingly "very curious" about the painted inscriptions within the Great Pyramid, who subsequently had a quarrel with Raven, and who, as a result of this dispute, was instantly dismissed by Vyse. Do these events sound at all familiar?

While Vyse does not elaborate on the specifics of this incident in his private journal (and nothing at all of them appears in his published account), it cannot be denied that, in these brief passages from his private field notes of May 9 and 10, 1837, the events the colonel writes of bear clear similarities with the key elements in Allen's account of his great-grandfather, Humphries Brewer, having had a dispute with Raven and Hill about some painted marks in the Great Pyramid and then being dismissed from the site by Vyse. Thus, what we might in fact have with these private journal entries is actual independent corroboration of the Allen story from the very pen of Vyse himself.

Except, however, for one very considerable fly in the ointment. This indecipherable "name" (this witness) who quarreled with Raven and who was subsequently dismissed appears three times in Vyse's private notes during these two critical days. This indecipherable name is about six to eight letters in length, begins with a capital letter *M*, and appears to end with the letters *ing* or *iq*. Clearly then, this name categorically *cannot* be Humphries or Brewer. (For the sake of simplicity and clarity, this unknown individual will henceforth be referred to as Witness M.)

And so, if this incident Vyse writes of in his private account was indeed the very same incident recalled in Allen's account from 1954, then we seem to have a contradiction as to who this witness to Vyse's fraud actually was. Allen cites his great-grandfather, Humphries Brewer, as the witness, but Vyse's private account seems to indicate someone else, a person whose name begins with *M* and appears to end with *ing* or perhaps *iq*. And yet, this contradiction aside, the fact remains that the key elements of this incident in both accounts are strikingly similar.

If Witness M was the true witness to fraudulent activity at Giza (rather than Brewer), what are we to make of this? Where does Brewer fit into the picture, if at all? Did Allen simply invent this story of his great-grandfather witnessing fraud at Giza, as some have suggested? If that were the case, however, then it has to be considered a quite astonishing insight by Allen that in 1954, almost 120 years after these events took place, he was able to recount with good accuracy some pertinent details involving Vyse and his team at Giza in early May 1837. This is to say that if Allen's great-grandfather had not been present at Giza at all during this time, how then could Allen have possibly known these details since Vyse never published any of them in his official account?

There are, however, a couple of possible explanations that might help us reconcile the apparent contradiction between the accounts of Vyse and Allen. A close analysis of the indecipherable name in Vyse's private journal informs us that there is no salutation such as "Mr.," "Sheikh," "Sir," "Captain," and so on, preceding it. This suggests the word is possibly a forename that is being used or even a nickname that is perhaps associated in some way with Brewer's actual name, his occupation, his status, or perhaps even an attribute of Brewer himself, such as his personal character or physical appearance, a nickname that Vyse might have used for Brewer that began with a capital *M* and ended with *ing* or *iq*. This idea of a nickname is given more weight when we observe that the first appearance of this name on May 9 is preceded with the word *The* (i.e., The M***ing). We know that Brewer was a young man, being only twenty years of age in 1837. If he was also of short stature, Vyse could have referred to Brewer as "The Manling" or simply "Manling"—a young or short man. This, of course, is but speculation, and we will never know the truth of this with any degree of certainty until such time as this indecipherable name can be definitively transcribed from Vyse's private journal.

Another—and it has to be said—more likely possibility is simply that this unknown "name" (our Witness M) was not Humphries Brewer at all but was actually someone else altogether whose name began with *M* and ended with *ing* or possibly *iq*.[*51] However, it may also be that when the quarrel with Witness M and Raven erupted, Brewer was standing nearby and witnessed the dispute take place (as undoubtedly some others would also have done, including Sir Robert and Lady Arbuthnot, who Vyse tells us were in their tent in his encampment at the time).

As such, Allen's great-grandfather may not have been the primary witness to the forgery per se, but in this scenario he *could* have been a primary witness to the *accusation* of forgery, hearing it firsthand as Witness M hurled it at Raven (and possibly also Hill and perhaps even Vyse himself) during the dispute. Brewer may also have been looking on as Vyse intervened and had Witness M instantly dismissed from his service as a result of the seriousness of the accusations being made. All of which Brewer could have faithfully reported in his letters to his family back in England. Indeed, it may even be that Brewer was so appalled by what he had witnessed on this day that he himself (assuming here that he was not Witness M) decided to express some choice words of his own with Vyse and Hill about their actions, words that perhaps prompted his own early departure from the colonel's employment, along with a permanent ban from the site and a guaranteed exclusion from Vyse's published works to boot.[†52]

But, of course, with family histories—especially when most of the written record is lost and the story is passed down only via oral means—events can become muddled, characters can become conflated or transposed, and before we know it, we find that it is Brewer himself who has become the main protagonist of the story, the one who witnessed the forgery firsthand, who then argued with Raven (and perhaps Hill), and who was subsequently dismissed by Vyse. Such are the perils of the oral transmission of family histories.

A Second Witness: The Prussian Prince

If we now consider more fully Vyse's private journal entry of May 9, 1837, concerning Prince Pückler-Muskau, matters become even more damning for the colonel.

Apparently, Vyse had held a discussion some time previously at Giza with Prince Hermann von Pückler-Muskau (fig. A2.11), a Prussian traveler and adventurer, in which the prince had said to Vyse that the British pyramid explorer would find an inscription in an "apartment." (As previously stated, the word *apartment* is sometines used by Vyse in his writings to describe these newly discovered chambers.)

This is a very peculiar statement by the Prussian prince. How exactly could Pückler-Muskau have correctly predicted that Vyse would find an "inscription" in an "apartment"? Even more peculiar here is that, according to Vyse's official account, Pückler-Muskau arrived at the colonel's encampment at Giza on February 22, 1837, but was refused permission by Vyse to camp there, being directed instead to a large mastaba tomb in the plain that was often used by travelers. The Prussian prince's stay at Giza was brief, and he departed for Upper Egypt just three days later. What this means, of course, is that any discussion between Vyse and this prince about inscriptions being found within a pyramid's "apartment" would have taken place over a month before Vyse had even breached any of the hidden chambers. How could this Prussian prince have known this in advance of Vyse entering any of the chambers? Was the Prussian prince privy to some secret, wider conspiracy to have inscriptions placed within the Great Pyramid?

Figure A2.11. Prince Hermann von Pückler-Muskau.

Pückler-Muskau was certainly a man known to have circulated in the highest echelons of Egyptian society at the time and, perhaps significantly, is known to have met Vyse's former disgruntled business partner, Giovanni Caviglia, during his stay in Cairo. We can only imagine what conversation Caviglia might have had with Pückler-Muskau regarding Vyse, who had only recently banished Caviglia from Giza. Was it during this meeting with Caviglia in February 1837 that the prince learned that Vyse was planning to find an inscription in the chamber he was attempting, at that time, to blast his way into? Or had the prince perhaps heard of a Vyse plan from among the people with whom he had encamped during his brief stay at Giza? With this peculiar comment in Vyse's private account, it seems quite possible that Pückler-Muskau was perhaps hinting to Vyse that he knew what the colonel was up to, that he knew Vyse was planning to make an "important discovery" in these sealed chambers by placing fraudulent inscriptions therein after gaining access to them.

After concluding his adventures through North Africa, this Prussian prince published his own travelogue of his extensive travels in 1845 in two volumes, titled *Egypt under Mehemet Ali*. In the first of these volumes he writes the following:

> For, after all, these rude beginnings of art, without sculpture, and without hieroglyphic writings, were nothing more than tumuli of stone, though, at the time of Herodotus, they were again surrounded with the ornaments of art, (which had improved in the meantime) with temples, sphinxes, colossi, courts, and avenues, all of which had hieroglyphics, while the primeval monuments were left with religious awe in their original simplicity.[14]

Pückler-Muskau repeated the above passage (with a slightly different translation) in a separate publication in 1847.

> For after all we cannot give any other name than tumuli of stone to these rough beginnings of art, without any sculpture or hieroglyphics, although in the time of Herodotus, they were again surrounded by the ornaments of an advanced art, with temples, sphinxes, colosses, court yards, and splendid avenues, all of which were ornamented with hieroglyphics, whilst the old monuments were left with a holy veneration in their primitive simplicity.[15]

What these passages clearly show is that the Prussian prince believed that although later Egyptian monuments had been decorated with hieroglyphics, the ancient monuments (by which he means the Giza pyramids) were devoid of all such hieroglyphic inscriptions and that they had always existed in this "primitive simplicity." That is what he appears to have believed during his time in Egypt visiting these monuments. Why then, weeks before Vyse had blasted open the first of the sealed chambers, Wellington's Chamber, would Pückler-Muskau predict that the colonel would find an inscription inside it? Why, if the prince believed these monuments, from the time of their construction, were intended to have been devoid of all hieroglyphic inscriptions and built with "primitive simplicity" (without any hieroglyphics), would he then assert that Vyse would go on to find an inscription in Wellington's Chamber? Why does he further write:

> I have confidence in the gallant and worthy Colonel Howard Vyse, and that by his perseverance and acuteness, he, sooner than any others, will at length make important discoveries.[16]

Here we observe that Pückler-Muskau believed that Vyse was more likely to make important discoveries than any of his peers in Egypt at the time. But why should the Prussian have held such a view? Is it, perhaps, because he had suspicions that Vyse was planning to place painted hieroglyphics into these chambers and that what is being expressed in this passage is not so much a compliment of the British colonel's determination but rather a veiled indictment of his fraudulent aspirations? If that were the case, then what evidence is there directly from Pückler-Muskau himself that actually shows that he did indeed suspect Vyse of fraudulent practices? In his 1847 publication, Pückler-Muskau writes the following truly astonishing passage:

> The hieroglyphics which Major Wyse[*53] pretends to have just discovered in the great pyramid are not cut in the stone, but merely drawn on the wall, and perhaps recently too, with a finger, dipped in colour.[17]

Thus, from the explosive remarks in his published works, it is quite evident that Pückler-Muskau appears to be questioning the provenance of the painted marks Vyse claimed to have discovered and thus their authenticity, stating that Vyse was merely *pretending* to have discovered them and that the marks were "merely drawn on the wall [ergo, in situ], and perhaps recently too." It seems that, for whatever reason, PücklerMuskau was deeply skeptical and somewhat suspicious of Vyse's activities at Giza. And, significantly, the prince was certainly not afraid to go public with his suspicions by putting them into print, which suggests he had, if called upon, the ability to produce the evidence to back up his very public accusation of fraud against Vyse. It may also be signficant that Vyse did not ever refute or challenge Pückler-Muskau's clear accusation against him.

The Lost Symbol

Let us now turn our attention to some of the actual quarry marks that Vyse claimed to have found in Lady Arbuthnot's Chamber after the minute examination on the second visit. While a number of anomalies of the painted marks in this chamber were identified and presented in my previous book, *The Great Pyramid Hoax*, additional anomalies have since come to light from this chamber that, upon detailed scrutiny, we find are also strongly suggestive of fraudulent activity having occurred in this chamber in 1837.

Figure A2.12. Impression of the marks copied by Perring from Lady Arbuthnot's Chamber. Note that one sign (lower row, far right) *is the only sign in this inscription that is upside down.*

In the course of his survey of Lady Arbuthnot's Chamber, Perring made a drawing of marks from a block on the eastern side of the south wall of this chamber (fig. A2.12).

These painted marks (known as old hieretic or linear hieroglyphic, that is, painted rather than chiseled hieroglyphic signs) present something of a curious anomaly. All the hieratic signs on the two rows of the inscription on this particular wall block are upright with the exception of one*:* the very last sign on the second row is, bizarrely, upside down. This is a fairly common sign used for this type of inscription to represent the names of construction gangs, in this case, the Pure Ones of the Horus Medjedu. The upside-down sign is transliterated as *apr*, which means "gang" or "team." We see it used many times in these Vyse Chambers as part of other gang names.

Aside from the mixed orientation of signs that we find on this block, which itself is a rare occurrence for such inscriptions, the anomaly here arises because the gang sign on this block is not actually needed for this particular piece of text. This gang sign is entirely superfluous to this piece of text since another—more crudely drawn—version of this sign is already presented (upright) as the first character of the second row of the inscription (fig. A2.13). This gang sign is never used twice in the same piece of text and never with two different orientations like we see in Perring's drawing of the marks presented on this block.

In response to this observation, critics have suggested that the ancient Egyptian scribe placing this inscription onto the block (presumably at the quarry or mason's yard) possibly began by first painting the upside-down gang sign in its proper upright manner but for some reason changed his mind, stopped, had the block rotated 180°, and began again, completing the full inscription as observed in Perring's drawing of it. This suggestion makes little sense, however, since it would mean the scribe would have started this inscription by painting the very *last* word in this piece of text (the gang sign) onto the block *first* (before rotating the block 180° to begin again). It would be unlikely in the extreme for an ancient Egyptian scribe to begin a piece of text by painting the final word in the sentence onto the block first; it's simply not how writing is done. As such, the presence of this gang sign, in this context, is entirely baffling and without parallel; there's just no logical way to explain its presence on this stone block in terms of conventional ancient Egyptian scribal writing because, as stated, with such an ensemble of signs, the gang sign would always be written last and never first.

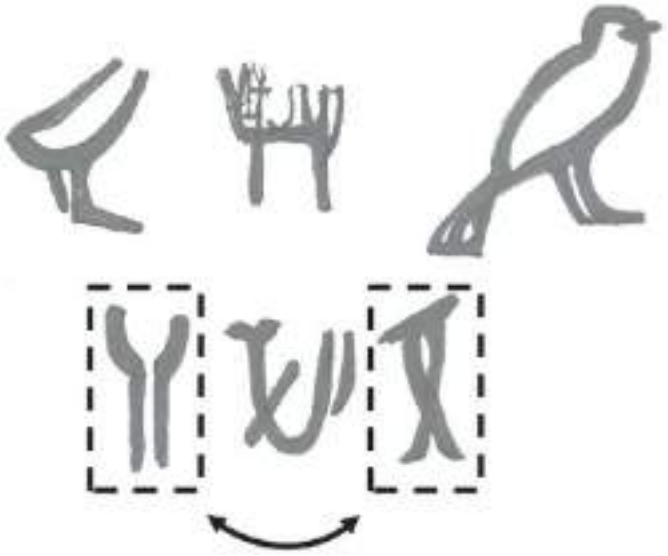

Figure A2.13. The gang sign in the dashed box (on the left) *is an upright and more crudely drawn version of the upside-down gang sign in the dashed box* (on the right).

But what is even *more* peculiar about this block inscription on the south wall of this chamber is Hill's one-to-one facsimile drawing of it (fig. A2.14, p. 252).

The anomalous upside-down gang sign is *gone!* Vanished! Disappeared!

A close analysis shows that there are a number of minor differences between the drawings of Perring and Hill of the signs on this particular wall block, but as we can see, the most striking and significant difference between the two is that the bizarre upside-down gang sign that we clearly observe in Perring's drawing (A2.12) is entirely missing from Hill's! It simply no longer exists.

And we can be absolutely certain that this gang sign is no longer present on the chamber wall because as we know, on May 19, 1837, Vyse arranged for a number of witnesses, including Sir Robert Arbuthnot, to attest to the accuracy of Hill's facsimile drawings against the actual marks in the various Vyse Chambers (with the exception of Campbell's Chamber, which had not yet been opened). Notably, Perring—a man whom Vyse had commissioned to make a plan survey copy of all the painted marks in these chambers and who would have known them fairly well—was not among the five witnesses to verify the accuracy of Hill's drawings. The absence of the upside-down gang sign is confirmed also by the Egyptologist Alan Rowe, who copied this group of marks in the 1920s (fig. A2.16).

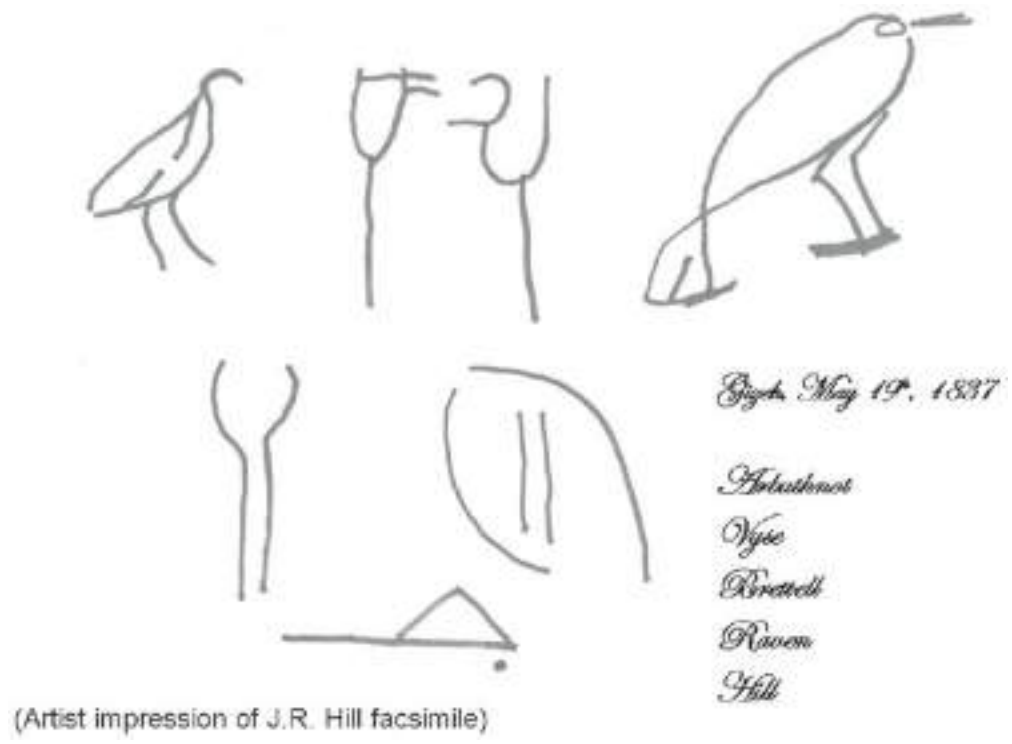

Figure A2.14. Impression of Hill's facsimile copy of the marks from the same block as Perring's drawing (see fig. A2.12). Note the five witness names signed on the drawing (lower right).

Figure A2.15. This upside-down gang sign is entirely missing from Hill's facsimile drawing.

What we also observe in Hill's and Rowe's drawings of the signs from this block is the inordinate amount of empty white space on the right side of the bottom row of the inscription in figure A2.16, almost as though a sign *had* once existed in this position, thereby causing the other two signs we observe on this row to be shifted leftward. Had this inscription been painted upright onto the stone at the quarry, then the ancient Egyptian scribe, writing right to left, would likely have placed the first sign of the second row directly under the first character of the first row, thereby placing this white space on the left of the bottom row and not, as we observe, on the right (fig. A2.17).

Figure A2.16. This block inscription by the Egyptologist Alan Rowe also shows that the upside-down gang sign is no longer present on the block. (Note: Rowe did not make exact copies of the painted wall marks and would often fill in missing elements to complete what he believed a particular sign was meant to be.)

So here we have a situation in which Perring copies what is a welldocumented hieratic sign, but one that, being superfluous to this inscription, is highly peculiar in this particular ensemble of marks and clearly out of place among the other upright signs on this block. But by the time Hill comes to copy the same group of marks, the anomalous symbol has vanished—*gone!*

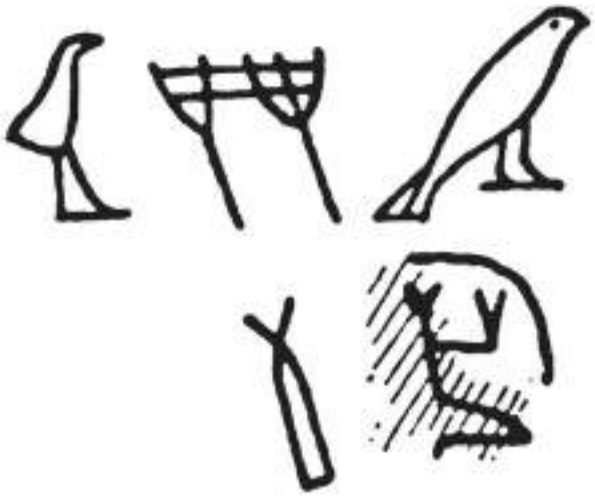

Figure A2.17. Impression of how this two-line inscription would likely have been painted onto the stone by an ancient Egyptian scribe. Note how when writing right to left, the white space ends up on the left (at the end of the inscription) and not the right side of the second row.

What on earth happened to it? More pertinently, what are the chances that the most anomalous hieratic sign presented from these chambers—a superfluous sign—just also happens to be the only sign to have mysteriously vanished from the chambers? How can the sudden disappearance of this sign be reasonably explained? Before we consider a possible answer to this, it is worth examining some of the explanations critics have made for the complete absence of this sign from the drawings of Hill and Rowe.

Poor Lighting

First of all, it is suggested that the lighting conditions (most likely from candles or oil lamps) might have resulted in Perring copying a sign that wasn't actually on the block, a sign that didn't actually exist (i.e., it is contended that Perring wholly *imagined* something that simply wasn't there). This scenario is highly improbable, for if this were true, then we would likely find a number of other such striking anomalies between the work of Perring and Hill, and we just don't. Yes, there are minor variances between the two men's work in the way certain signs have been drawn (which is to be expected), but for Perring to have imagined entirely the presence of a bona-fide ancient Egyptian hieratic gang sign is on a different level of improbability altogether. Furthermore, Perring would have spent a fair bit of time observing and copying the marks from this wall block; this would not have been a fleeting glimpse that he would have had of these particular marks. It is one thing to perhaps miss some small detail that does exist in a particular inscription but an altogether different matter for someone to somehow observe and copy an entire sign that simply doesn't exist on the stone and for that imagined sign to then actually have meaning, to be a common, recognizable hieratic symbol as opposed to a series of random brush strokes made in the dim light that would more likely have created a meaningless blob of paint. And, as outlined above, the white space being on the right side of the second row (as opposed to the more natural left side) is indicative of something having once been present in this position on the wall block that was removed, thereby creating the inordinate amount of white space on the right-hand side of this row of the inscription.

Lithographer Mistake

Secondly, critics point out that in Perring's publication we have only a lithographer's copy of Perring's original drawings. It is thereby inferred that somewhere along the line, a mistake was made during the production of the lithographic plates from which the subsequent impression prints were made for Perring's published account (and presumably Vyse's also).

But once again this particular possibility simply does not stand up to basic scrutiny. As stated, these lithographic plates would have been created using Perring's original artwork. It is the lithographer's job to ensure an accurate lithograph is made from the original artwork. These lithographs (usually made of stone, hence "litho") were not easy to make and would likely have had the lithographer spending many hours carefully studying the original artwork before etching a reverse image of the artwork onto the stone (in order to make a positive print). Is it reasonable to suggest that, given the considerable skill, time, and effort involved, the lithographer could have made such a basic mistake, that the lithographer had somehow imagined (for a lengthy period of time) a symbol that simply wasn't present in Perring's original artwork and then to etch a reverse image of it? Seriously?

Over and above this possibility, standard publishing practice would have ensured that proof copies were made from the lithographic negative and that the proofs, importantly, would have needed to be approved by Perring before final publication. It is simply inconceivable that a proof check would not have taken place for a drawing of such considerable importance. As such, we must accept that the lithographer would have made a true and accurate copy of Perring's original artwork and that Perring himself would have approved the lithographer's proof copy for publication. In fact, Perring's signature actually appears on the plates of these drawings in his publication of them in 1839, a year before Vyse published them in his own book.

It is also worth pointing out in this regard that a separate, slightly different version of this inscription (including the upside-down gang sign) appears in Vyse's *Operations Carried On at the Pyramids of Gizeh in 1837*, from 1840 (fig. A2.18, p. 256, *left*). A comparison of this inscription with the one from Perring's *The Pyramids of Gizeh*, from 1839 (fig. A2.18, *right*), shows some minor differences in the rendering of the drawings, thereby indicating the use of two separate lithographs.

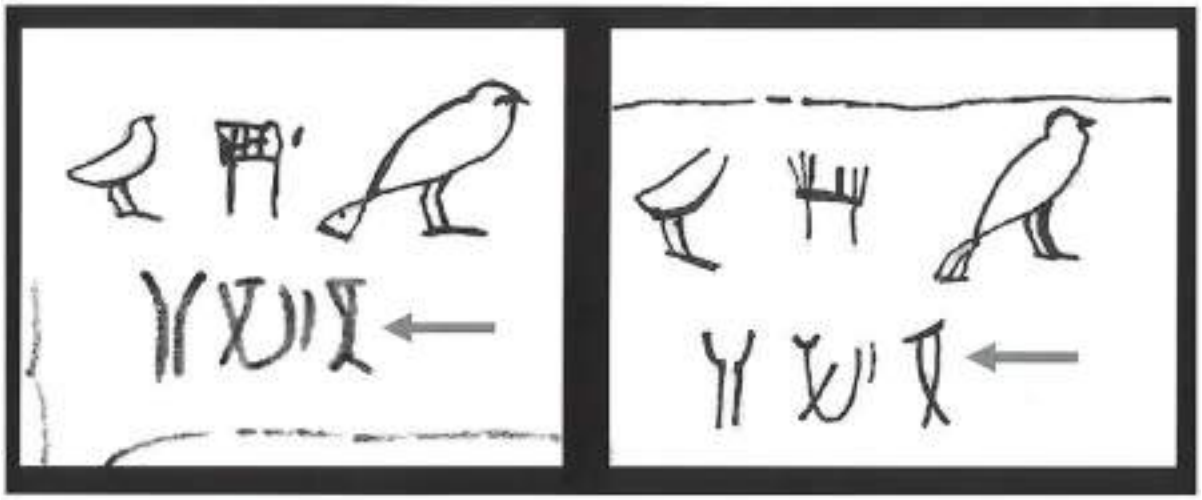

Figure A2.18. Two separate lithographic prints were made of the upside-down gang sign (indicated by arrows): left, from Vyse's Operations Carried On at the Pyramids of Gizeh (1840), and right, from Perring's The Pyramids of Gizeh (1839).

If we are to imagine that two different lithographic plates were produced using just one original source—Perring's drawing—then just how likely is it that the lithographer(s), working for hours on each of the two different lithographic plates, somehow imagined the upsidedown gang sign on two occasions in Perring's drawing? This is surely highly unlikely indeed, and, as such, on the balance of probability, we must conclude that Perring *did* make at least one actual drawing (possibly even two—one copy for Vyse's use and another for Perring's own book) in which this upside-down gang sign *was* present in his original artwork. This was *not* a mistake by the lithographers: they would have copied and produced exactly what they saw in Perring's original source drawing(s).

And so, if this cannot have been a mistake by the lithographers and we accept that Perring made a true and accurate copy of the signs he observed on that wall block in Lady Arbuthnot's Chamber (possibly two copies), then the subsequent and mysterious disappearance of this bizarrely placed, upside-down hieratic gang sign (its disappearance being verified by no less than five people in 1837 and subsequently also by Alan Rowe in 1924) must surely set alarm bells ringing. There is surely something very seriously amiss here.

An Arabic Hand

But if these marks *were* faked by Vyse's assistants (on the colonel's instruction), how did such a glaring mistake come to be made in the first place and how did the upside-down gang sign come to be present in Perring's drawing and then become absent from Hill's (and Alan Rowe's)?

There is another possible explanation.

Virtually all of the painted marks in the Vyse Chambers are presented either upside down or sideways on the wall blocks. Indeed, this inscription is the only one in all the Vyse Chambers that is presented on the stone in an upright manner. Of course, statistically speaking, we would surely expect to observe some inscriptions on these wall blocks presented in an upright manner. Indeed, were we to have found no inscriptions presented in the upright manner, then this would surely have been considered an anomaly. Perhaps what we are witnessing with this upright inscription is just such a statistical realization having dawned on the forger of these wall marks: he needed to present at least one inscription in the upright manner.

If we were to imagine that Vyse employed a local Egyptian to copy this particular inscription onto this wall block (as evidence in Nelson's Chamber analyzed earlier in this book also suggests) and that this Egyptian began copying the inscription onto the wall using an upside-down master source, then, being Arabic and writing from right to left (and top to bottom), the first sign he naturally would have copied onto the wall block would have been the upside-down gang sign (fig. A2.19, p. 258).

However, it seems that after painting the first sign onto the wall—the upside-down gang sign—the forger changed his mind (perhaps realizing the statistical issue mentioned above), rotated his master source 180°, and began again, now copying all of the signs upright onto the wall block (fig. A2.20), resulting in the sign for "gang" being presented twice on the second row of the inscription and oriented in two different directions. The Arabic forger would, of course, have been fully aware of his upsidedown "false start" sign and would have likely planned that this now superfluous and erroneous sign would be removed from the wall block some time later (perhaps with a chisel or sandpaper), thereby resulting in the inordinate amount of white space to the right of the inscription.

Alas, however, before the forger got around to removing the superfluous and erroneous gang sign, unbeknownst to him, Perring, as part of his ongoing survey of the chamber marks, entered Lady Arbuthnot's Chamber and made his own copy of this group of signs, including the duplicate upside-down gang sign that had not yet been removed. The forger would likely have arrived a short time after Perring to remove the "false start" sign, perhaps unaware that Perring had already copied all the signs from this wall block. It may also be that the forger *did* know that Perring had copied the duplicate gang sign but was reluctant to say anything to him about it lest the fraudulent activity he was engaged in be revealed to Perring.[*54]

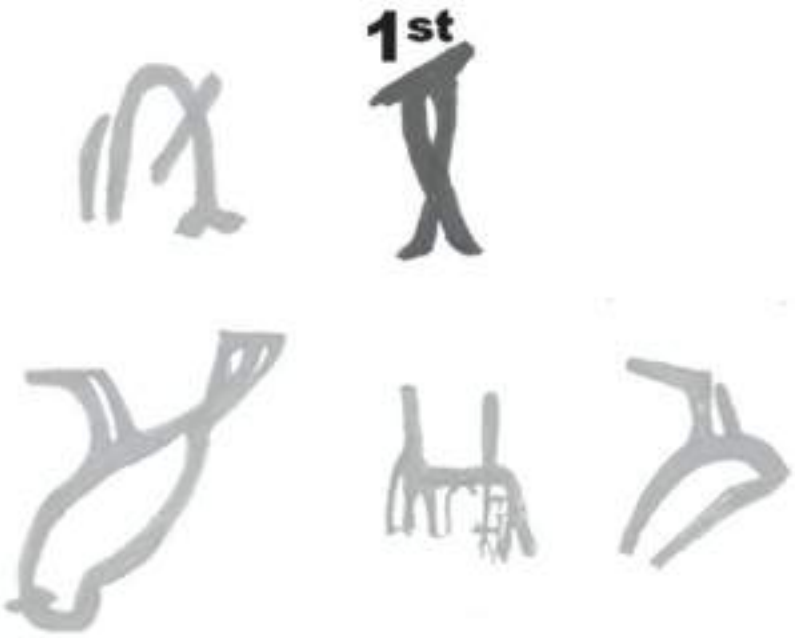

Figure A2.19. Proposed master source inscription (upside down). Were this inscription copied with this orientation onto a wall by an Egyptian employee of Vyse, then, being Arabic and writing from right to left and top to bottom, the first sign he would have copied onto the wall block would have been the upside-down gang sign (top right).

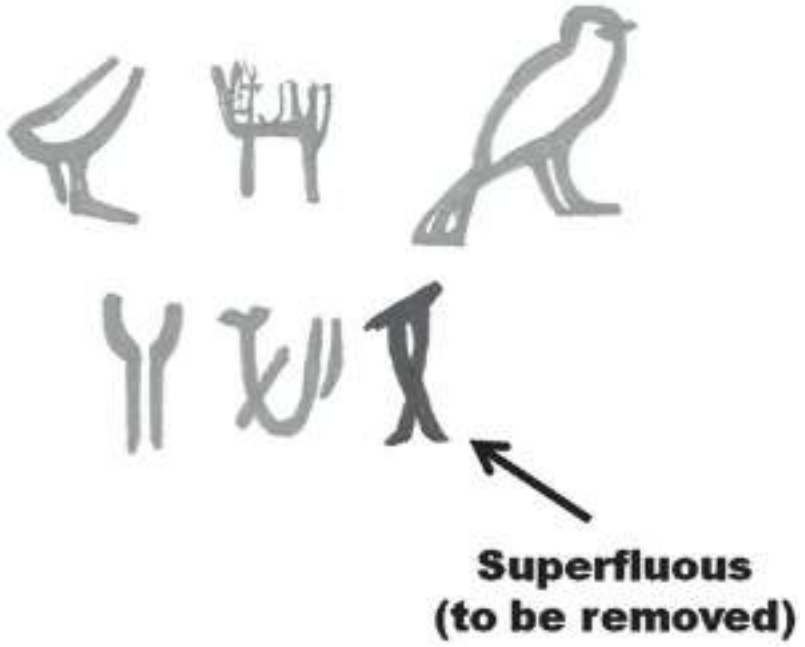

Figure A2.20. Having copied the initial sign onto the wall block upside down, the forger seems to have changed his mind, rotated his master source 180°, and began again, copying all the now upright signs onto the block, resolving to have his " false start," the initial upside-down sign, removed from the block at a later time.

With the duplicate gang sign now removed, Hill then entered the chamber shortly afterward and made his own facsimile copy of the block inscription, now minus the superfluous upside-down gang sign (see fig. A2.14, p. 252) and, in so doing, created the contradiction that we observe today between his copy of these marks and that of Perring.

If this hypothesis is correct, then what we have here is further evidence of a local Egyptian Arabic writer having been employed by Vyse to copy marks onto the walls of both Nelson's and Lady Arbuthnot's Chambers. But more than that, the evidence of this particular inscription strongly suggests that this Egyptian used a master source (a guide or template) from which to copy these inscriptions onto the various wall blocks in these chambers. A master source initially being held upside down (to create the illusion of authenticity) explains why the gang sign (see fig. A2.20, *bottom right*) is transposed to the top-right position (see fig. A2.19) and, as such, would be copied first by an Arabic hand when, in natural hieratic writing convention, it should have been written last. An ancient Egyptian scribe would have had little need for any master source; he would simply have painted the upright inscription straight onto the block from memory and without any false starts.

To reiterate, the only feasible way that this gang sign would appear twice on this block with two different orientations, at the bottom left and bottom right of this inscription (as presented in Perring's drawing, see fig. A2.12, p. 250), is to propose that two separate attempts were made at painting this particular group of signs onto the wall block from a master source that was initially oriented upside down and subsequently rotated to be upright. Had this inscription been created by an ancient Egyptian scribe, it is unlikely that we would have ever seen two gang signs with two different orientations present on the block. Being at the quarry and having full access to the stone, it would have been easy enough for such an ancient scribe to simply use and incorporate any upside-down gang sign (if such had been placed onto the block) into the intended inscription by painting the remaining signs with the appropriate orientation above and to the right of the already existing gang sign. By using an existing gang sign in the intended inscription, there is no need to draw a second gang sign on the stone or, indeed, to remove any erroneous signs from it. In short, it is highly unlikely that such a situation of two gang signs with two different orientations being present in one inscription (as we observe in Perring's drawing) could have arisen in an ancient Egyptian quarry.

What this evidence seems to demonstrate is a deliberate act of copying an upside-down sign onto this block of stone. Given that there is no plausible reason whatsoever for an ancient Egyptian scribe to paint signs in this manner

onto any block, then we must conclude that this was the action of a modern forger making two separate attempts at copying this inscription from a master source onto the chamber wall. And with the change of mind in the orientation of the inscription, it then became necessary to later remove the initial upside-down gang sign, the false start, and that is precisely what we observe in Hill's and Rowe's drawings of this inscription. The forger of this inscription clearly knew which sign was a duplicate, and that is why that particular sign was subsequently removed from the chamber wall. In short, what we are witnessing here is clear evidence of blatant fraud—pure and simple.

A Reconstruction

And so, using information from Vyse's private journal along with that in his published account, it now becomes possible to reconstruct a tentative, hypothetical sequence of the full events at Giza during the period of May 6 to May 10, 1837.

MAY 6

- Vyse opens his third chamber (yet to be named) and, along with Raven, enters and explores it but finds nothing —no secret burial of Khufu, no treasure, and not a single quarry mark (because there are no quarry marks present on any wall block at this time).
- Before leaving for Cairo, Vyse gives one of his Egyptian workers a set of quarry marks from his secret cache, instructing him to paint the marks, large and bold, onto some wall blocks in Lady Arbuthnot's Chamber.
- Shortly after Vyse and his assistants had departed for Cairo, Witness M enters the newly opened chamber, perhaps to store his tools for the night. He has a look around and, just like Vyse and Raven earlier, he finds nothing.

MAY 7

- In Cairo, Vyse calls on Colonel Patrick Campbell and is introduced to Sir Robert and Lady Arbuthnot, both of whom express great interest in Vyse's explorations at the pyramids. Vyse tells them of his discoveries thus far but says nothing of having already entered the new chamber, perhaps telling them that he expects to breach it soon. (He needs time to have his Egyptian worker paint the fake marks into the chamber and to have his work checked).

MAY 8

- In Lady Arbuthnot's Chamber Vyse's Egyptian worker, as instructed, begins painting fake marks onto a number of wall blocks using Vyse's secret cache as his guide. On one of the blocks he begins painting a group of signs upside-down. Having painted the first sign, he changes his mind and rotates his master guide 180° and begins painting the same signs upright, resolving to come back the following day to remove his initial upside-down sign from the block.
- Vyse calls again on Sir Robert and Lady Arbuthnot as he has had an idea, and they talk. The colonel invites the Arbuthnots to visit the Great Pyramid on May 10 to be among the first visitors into the new chamber, which he tells them is certain to have been opened by then. (It's already open.) He asks Sir Robert if he would act as a witness to the discovery of the quarry marks in the chambers thus far opened and perhaps other marks in the new chamber if any are discovered when the chamber is finally breached, and in return for this service, he offers to name the new chamber after Sir Robert. Sir Robert is flattered by Vyse's generous offer but agrees to the colonel's request only on the condition that the new chamber be named in his wife's honor, a condition that Vyse gladly accepts. The colonel now has a reputable and distinguished witness ready to testify to the

authenticity of his discoveries.

- Vyse and his assistants return to Giza from Cairo late that afternoon.

MAY 9

- Early in the day, Raven and Hill enter Lady Arbuthnot's Chamber to check upon the progress of Vyse's Egyptian worker. (Vyse should have gone with them too, but he was unwell.) The Egyptian is nowhere to be seen but his handiwork is now plainly evident on the chamber walls. The two men inspect his work and decide that some of the fake marks needed repainting to make them bolder and clearer and so they set about this task, perhaps adding some fake marks of their own.
- Later, (with the "inspection" of Lady Arbuthnot's Chamber now complete), Vyse then instructs Mr. Perring to begin a survey of all the quarry marks in the Great Pyramid, beginning with Lady Arbuthnot's Chamber.
- Some hours later, after Perring had completed his survey of the quarry marks in Lady Arbuthnot's Chamber, Vyse's Egyptian worker returns to the empty chamber and chisels away the erroneous upside-down sign from the wall block, unaware that it had already been copied by Perring earlier that day.
- The Arbuthnots arrive at Vyse's encampment. Vyse tells them that their timing is excellent as the new chamber had just been opened and that a great many quarry marks had been discovered on its walls, which he would like them to witness.
- After dinner that evening, the Arbuthnots agree to the wording of the dedication inscription, and Vyse sends Hill to the Great Pyramid to paint the inscription onto a chamber wall in order that his guests might witness it during their visit the following day, making sure that the dedication text bears that day's date (May 9) as the chamber's opening date. He also asks Hill to bring back facsimile copies (in the original size) of some of the chamber inscriptions discovered earlier that day so that the Arbuthnots might witness them on the very day of their "discovery."
- Meanwhile Witness M comes again to deposit his tools in Lady Arbuthnot's Chamber after the day's work. He is utterly shocked to see that three walls of the chamber are now resplendent with a profusion of fraudulently painted hieroglyphic marks. As he is about to leave, Hill arrives to paint the dedication inscription (and make his facsimile copies). Witness M tells Hill that he suspects the painted hieroglyphic marks on the chamber walls are fraudulent as he had not noticed them before, and perhaps further states that he suspects Raven of perpetrating the fraud as, earlier that day, he saw Raven exiting the pyramid, carrying a bucket of red ochre paint and some brushes. Hill is taken aback and answers that he knows nothing of this. Witness M further tells Hill that, back in February, Prince Pückler-Muskau had confided in him that he suspected Vyse was planning to place fraudulent marks within the chambers. Again, Hill refuses to engage in the discussion, perhaps suggesting that Witness M take his concerns directly to the colonel.
- Upon returning from the pyramid, Hill gives Vyse his facsimile copies of the painted marks (now minus the superfluous upsidedown sign that Perring had managed to copy before Vyse's Egyptian worker had it removed.) He also relays the suspicions of Witness M to Vyse, to which the colonel euphemistically writes in his private journal that Witness M "is very curious." Curious about what? The colonel doesn't say, but his very next thought is to recollect a conversation from February of that year in which Pückler-Muskau—even before any chamber had been opened— said that Vyse would find an inscription in an apartment. Vyse is perhaps wondering here just how much the Prussian prince knew of his plans and whether he was the source of Witness M's "curiosity" (seemingly of the quarry marks in Lady Arbuthnot's Chamber). However, the die was cast. The quarry marks and dedication inscription had already been painted onto the chamber walls and the Arbuthnots invited to visit the pyramid the following day. There was no going back for Vyse now, even if he had wanted to.

MAY 10

- Sir Robert and Lady Arbuthnot go to the Great Pyramid while Vyse remains behind. They return some time

later and go to their tent to escape the hot weather.

- Having mulled things over through the night and seeing no action from Vyse, Witness M decides to take matters into his own hands. Later that afternoon, in Vyse's encampment, he seeks out and challenges Raven directly, accusing him (and possibly also Hill) of painting fake marks onto the walls of Lady Arbuthnot's Chamber. An almighty quarrel erupts between Raven and Witness M. Raven claims he was merely painting over faint marks that were already present on the stones, simply to make them clearer. But this is countered by Witness M who insists that there were no signs present on any chamber wall days earlier and that these marks were new. The argument rages on in full earshot of Vyse, the Arbuthnots, and probably also a certain Humphries Brewer. Witness M further insists to the assembled onlookers that the chamber had been opened and inspected by Vyse and Raven on May 6, three days previously, that no quarry marks had been reported to have been found by either of them during their initial inspection, and that Vyse had used the intervening days to have Raven (and perhaps Hill) place fraudulent marks into the chamber, then had Hill paint a false opening date of May 9 onto the chamber wall so that there would be no time lag between the chamber being opened and the painted marks supposedly being discovered. Witness M demands of Raven to admit that this is the truth. Raven, seeing that the Arbuthnots were looking on at the spectacle from their nearby tent, waiting for him to respond, can only look to Vyse for guidance.
- Vyse, horrified by what Witness M had revealed to his distinguished guests, the Arbuthnots, intervenes and instantly dismisses the man from his service, charging him with scurrilous and outrageous accusations and of behavior thoroughly unbecoming of a gentleman.
- A short time later, the colonel, realizing the Arbuthnots had been witnesses to the allegations made by Witness M, invites them both for a walk, possibly to smooth things over and explain to them the "truth" of the situation with the newly opened chamber. But it would seem that the strength of Witness M's allegation was too overwhelming for Vyse to dismiss outright the man's claim that the chamber had actually been opened and explored days earlier, on May 6. He explains away this discrepancy perhaps by telling the Arbuthnots that the chamber had only been partially opened and was not easily accessible on May 6. He insists that the chamber was only fully accessible on May 9 and that this is why he had Hill paint the later date onto the chamber wall. A barely credible fudge. He explains further that because he was needed in Cairo on the evening of May 6, he and Raven were able only to make a short inspection of the chamber and that there was no time to inspect the chamber walls more thoroughly at that time for any painted markings. He adds, however, that the chamber walls were minutely examined on May 9 by Raven and Hill, and upon the second inspection, a great many quarry marks were then found. The Arbuthnots smile politely at Vyse's explanation and thank him again for naming the chamber in Lady Arbuthnot's honor.
- Humphries Brewer, a witness to the altercation and the accusations of fraud being made by Witness M against Raven (and possibly also Hill), would report the incident to his family back in England, telling them what he had witnessed that fateful day, writing ". . . had dispute with Raven and Hill . . . faint marks were repainted, some were new."

MAY 19

- Sir Robert Arbuthnot, in attendance with some other witnesses, testifies to the accuracy of the facsimile drawings of the chamber marks made by Hill. He notices that in Lady Arbuthnot's Chamber, the dedication inscription still reads "May 9th, 1837," as does the date on all of Hill's various drawings from this chamber. He quietly suggests to Vyse that the true opening date of the chamber (May 6, 1837) be recorded in the colonel's future publication. Vyse nods in subdued acquiescence to this. Sir Robert then adds his signature to Hill's drawings.

Such *might* have been the scene at Giza during those five highly charged days in May 1837. With this altercation exploding in Vyse's face, and most likely in full public view of Sir Robert and Lady Arbuthnot who were in their nearby tent, then whatever was said in the heated exchange between Witness M and Raven seems to have made it impossible for Vyse to later claim (in his published account) that Lady Arbuthnot's Chamber was first opened and entered on May 9, and neither was it now possible for him to claim (as he had likely planned) that the

painted quarry marks had been discovered on the same day the chamber was first opened (now May 6). And neither could he now backfill his May 6 published entry to say that the quarry marks had been discovered on this earlier date (as he had done with Nelson's Chamber). It was too late as he had likely already declared to the Arbuthnots (and others) that the quarry marks in this chamber had been discovered on May 9 after a second inspection and, as such, would have been deeply suspicious to also retract and alter this.

Were Vyse to have continued fully with his plan in his official account, claiming that the chamber had been opened on May 9 and the quarry marks discovered also on this day, then the Arbuthnots, upon reading such an account and then recalling the dispute of May 10 between Witness M and Raven, and Vyse's subsequent walk with them, would surely have known the claim to be false and quite possibly could have called Vyse out on it. Vyse simply could not take such a risk and, it seems, was forced by circumstances beyond his control (whatever was revealed during the quarrel between Witness M and Raven) to curtail his plan and revert in his published account to the true opening date of the chamber—May 6, 1837.

Having been forced by unforeseen events to abort the May 9 opening date, and unable to retract the "discovery" date of the chamber's quarry marks from this day, the marks were then left high and dry with a highly peculiar and unrealistic time lag of three days before their discovery. To explain away this peculiarity, Vyse concocts what can only be described as a barely credible cover story: that this chamber (unlike the others) somehow required a second minute examination on May 9 before any of its numerous, large painted hieroglyphic marks could be found; marks whose presence, by this time, would have been entirely anticipated by Vyse and Raven in this near identical chamber, and thus should have been no more difficult to discover during the first inspection than those found in the chambers below.

Had the quarrel with Witness M and Raven never occurred, then the true opening date of the chamber on May 6 would likely have never been revealed to the Arbuthnots (and other possible witnesses) and in that scenario, Vyse's published volume would almost certainly have declared to the world that the opening of this chamber and the discovery of the painted marks therein had occurred on the very same day, May 9, 1837. The key events of May 6 would have been airbrushed out; we were simply never meant to know the true opening date of this chamber.

Complicating matters further for Vyse was the publication of Perring's account in 1839, a year before Vyse published. Here Perring states that Lady Arbuthnot's Chamber was opened on May 6. Consequently, Vyse was likely forced to revert to this true date, and also to misreport the chamber inscription date as May 6 to ensure there was no contradiction in his book, lest he face some awkward questions. In short, a cover up.

The dedication inscription that we observe today on the south wall of Lady Arbuthnot's Chamber bearing the date of May 9 speaks against the truth of the events at Giza in May 1837 and stands in silent testimony to the planned deception of Vyse, which, as a result of unforeseen events, was partially aborted by him. The legacy of this botched deception is there to see also in the facsimile sheets from this chamber drawn by Hill. Unsurprisingly, the colonel makes no mention of nor attempts to explain anywhere in his published account the contradictory May 9 date Hill had painted into Lady Arbuthnot's Chamber and onto his six facsimile sheets, which Vyse witnessed and signed. This glaring contradiction is completely and—one has to suspect—conveniently ignored by him. As well it might, for to have presented the chamber's contradictory May 9 opening date in his published account would have required Vyse to offer a full and cogent explanation for its occurrence, a situation that appears to have proved just too awkward and difficult a task for the colonel to even attempt. A case of "least said, soonest mended," in the hope that no one would ever notice his false reporting of the evidence and join up the dots.

What may also be significant and somewhat revealing in all of this is the fact that in Vyse's published account we learn that, for various reasons, he discharged a total of four men from his service throughout the course of his operations at Giza, all of which he recounts and clearly documents. However, this fifth incident of a worker being discharged on May 10 that we read of in the colonel's private account has, somewhat curiously, been entirely expunged from his official narrative. There is not a single word spoken of this particular incident in any of Vyse's three published volumes, and we are surely entitled to ponder why he would opt not to publicly document any of the circumstances around the dismissal of Witness M. Was this incident of May 10, 1837, so bad, so highly controversial, so personally detrimental, incriminating, and damaging to Vyse's reputation and work that he felt compelled to exclude it entirely from his published version of events at Giza?

Crew Cuts

In her book *Egyptian Phyles in the Old Kingdom*, the Egyptologist Ann Macy Roth presents a hypothesis that describes the organization of labor during the time the Great Pyramid was being built (and beyond). Roth proposes that these phyles (part-time groups of workers in the service of the king and/or other senior officials) were subdivided into smaller crews, gangs, and divisions to effect the task of constructing various ancient monuments. Each of these work gangs would have its own unique name, and often one of the king's various names would form a part of the gang's own name, such as, for example, the Friends of Khufu gang or the Drunkards of Menkaure gang.

From Roth's study, it seems that the names painted onto the quarried and dressed stones we observe in some of these ancient monuments were those of the gangs whose responsibility it was to actually maneuver and set into its final position each stone within a particular construction, be it a mastaba, temple, palace, pyramid, or whatever. So while these marks, it seems, were painted onto the finished blocks at the quarry, these inscriptions were not the gang names of the quarry laborers or masons working there, but rather appear to have served as a sort of "delivery address" for the installation gangs at the actual construction site. Roth explains:

> The geological layering in these blocks shows that they were frequently placed together in the temple wall just as they had been in the earth. In some cases one can see a vein of softer rock running the length of a wall. These core blocks were generally laid in segments, having previously been fitted together, probably at the quarry. The simplest procedure would have been to fit together a row of blocks that had been quarried from the same area. At this point, each of the series of fitted blocks would have been marked with the hieroglyph of the division that was responsible for placing the block correctly in the temple.[18]

As implied in Roth's statement, it would make sense that a mason's yard would be close to each of the various quarries (of which there were several along the length of the Nile), ready to receive each roughly hewn stone from the quarry laborers, whereupon a team of stonemasons would then set about sizing and shaping the stone to a regular block of a required size—each stone made to measure and to fit within the overall dimensions of a particular structure, such as a chamber wall.

Having the stones cut and shaped at or close to the quarry would, naturally, be much more efficient in terms of the transportation of any given block, a sizable number of which would have to travel many miles down the Nile, across the desert, and then up the steep pyramid slope itself. It makes no sense to haul large, uncut, and unfinished blocks any considerable distance, when hauling a smaller, finished stone would be easier and waste fewer resources. Thus, we can be fairly certain that only dressed blocks (stones cut to a required size and shape), having been appropriately "addressed" with the relevant installation gang's name painted onto the block, would have been sent up to the working level of the pyramid and, after installation, smoothed and polished as necessary.

It makes sense, of course, to address each stone only after the masons had completed their cutting and shaping work and the block was ready to be dispatched. Prematurely painting the addressee's name onto unfinished blocks makes little sense since, as the stone is still being worked, any painted marks made on the stone at this early stage could become scuffed and worn, parts of the addressee's gang name could end up having to be cut off to bring the stone to a particular length or height, or the team waiting to receive the stones could have been moved to another part of the construction site or even rotated out of service by the time the block was ready for dispatch. In such cases, the stone might still be going to the same physical location but the addressee's name would now need to be changed to reflect the name of the new gang now working at the intended destination. So, as previously stated, best then that addressing the stone with painted marks was done only after the stone was finished and ready for dispatch. Perhaps the addressee's name would even need to be checked at this stage to ensure the intended installation gang was still present at the delivery location.

Upon a stone's arriving at its intended location in the pyramid, it is reasonable to expect that some level of refinement might have been required for a particular block, but this would likely, by this time, have been only very minor adjustments. Having already (one must presume) been correctly measured, shaped, sized, and checked at the quarry before being dispatched, then, all things being equal, there should have been little need, at this stage, for any major reworking of the stones during their final installation at the pyramid.

In the mortuary temple of Menkaure at Giza, which Roth describes at length in her book, we find around thirteen examples of the gang name the Drunkards of Menkaure and two of the Friends of Menkaure—a total of fifteen gang inscriptions. Each of these gang names was carefully copied from the temple blocks by Alan Rowe

when he was exploring the temple with George Reisner in the 1930s. Rowe's drawings of these gang names (figs. A2.21a and A2.21b), while not always showing the actual orientation of a particular group of signs, nevertheless are careful to show where lines have been slightly scuffed (which he completes with a dotted line) or where signs have been entirely worn away (which he indicates with the lighter shading.

What is immediately noticeable about the fifteen gang name sketches made by Rowe from the blocks in this temple is that not a single one of them is presented with any loss of the gang name due to cutting or trimming of the particular block, either vertically or horizontally, suggesting that these painted delivery addresses of the installation gangs had been, as Roth proposes, painted onto the blocks only after the block was finished by the stonemasons at the quarry and was ready to be dispatched to the installation crews at the temple.

Figure A2.21a. The gang name Drunkards of Menkaure.

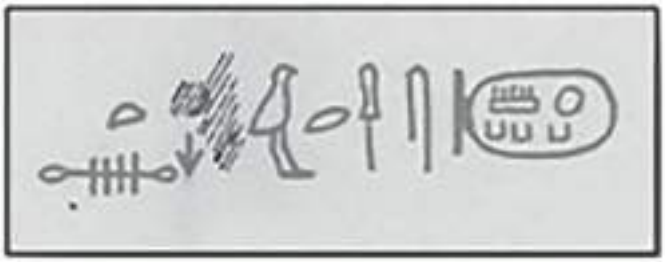

Figure A2.21b. The gang name Friends of Menkaure.

It seems that, upon arriving at Menkaure's temple installation site, there was little need for further cutting of the wall blocks, as evidenced by the completeness of the painted gang inscriptions and as we might expect to find. As such then, theoretically at least, we should expect to find a similar completeness with regard to the painted gang names in the Vyse Chambers of the Great Pyramid. However, a cursory examination of the painted gang names on the blocks in these chambers, from drawings of the marks made by Perring,[*55] presents us with a quite different and somewhat perplexing picture.

Roth explains that a line of blocks, such as those forming a course layer of a wall, would likely have been placed together in segments at the quarry. For the purposes of checking the bedding layers and the overall height of a particular wall, this would have been a necessary, practical, and commonsense approach. And given the different bedding layers in the walls of Lady Arbutnot's Chamber, it would likely have required that the different courses were actually laid one atop the other or perhaps simply laid tight against each other on their sides at the quarry in order to check that the wall was of the required, preordered height and was consistent in this height along its full length. Having made these checks, and with everything in order, the wall blocks would then be individually addressed and duly dispatched to the installers up at the pyramid, ready to be set in place without too much fuss. At least, in theory.

On the north wall of Lady Arbuthnot's Chamber, we find a total of seven examples of the gang that called itself the Powerful White Crown of Khnum-Khufu. Two examples of this gang name appear on the chamber wall

blocks sideways, while the remaining five examples appear on the blocks upside down. Of the seven blocks on which these gang names appear, we find that five of them, somewhat bizarrely, appear to have been significantly reworked upon arriving at their final destination at the pyramid, suggesting that the stonemasons down at the quarry, for some unfathomable reason, made a complete mess of measuring, shaping, and cutting the various blocks—stonemasons who, we must assume by this time, had considerable experience in cutting the blocks for the three similarly sized chambers below Lady Arbuthnot's.

On two of the five reworked blocks (and on two different course layers), we find clear evidence of parts of painted gang names having been truncated horizontally along the top of the block (figs. A2.22a and A2.22b), suggesting that a sizeable chunk at the top of these blocks was removed post-dressing (upon their arrival at the pyramid for installation).

On the three remaining reworked blocks, it seems that the gang name has been truncated slightly on the left side of the block, suggesting these blocks were shortened vertically with a cut down their left side, seemingly at some point after arriving at the pyramid for installation.

That we apparently have so many gang names cut off on the wall blocks in this chamber when, at least in theory, we shouldn't be finding any makes little sense and, given the observations from Menkaure's mortuary temple, appears to run entirely contrary to what we might have expected to find. In short, what we have here is yet another anomaly. And when we consider this anomaly in a bit more depth, we find it becomes even more peculiar than at first glance.

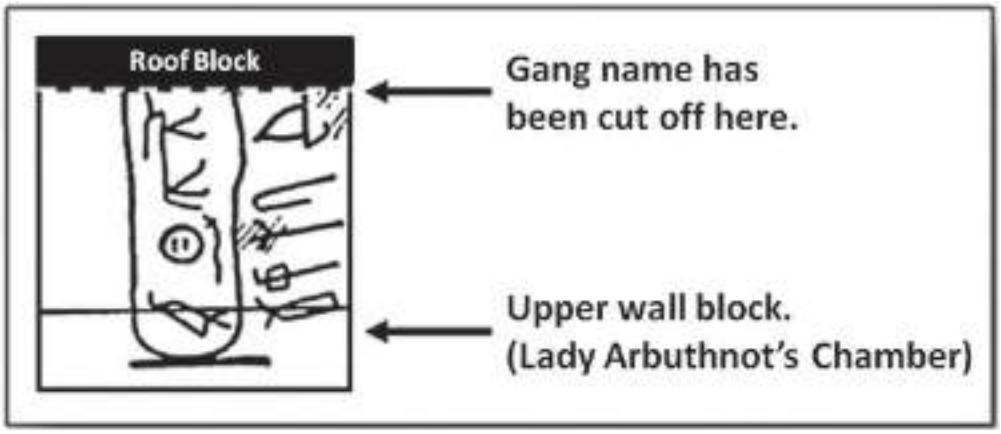

Figure A2.22a. The top part of this gang name on an upper-layer wall block in Lady Arbuthnot's Chamber has been cut off in order to properly fit the block into the chamber wall.

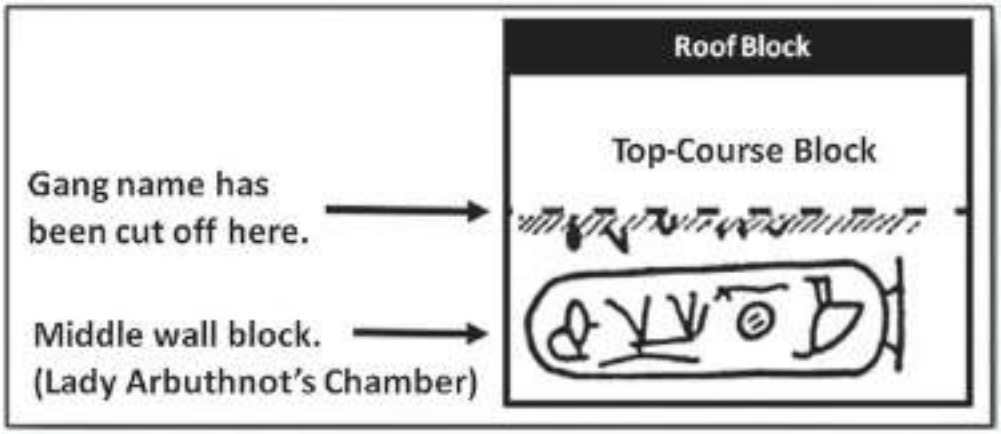

Figure A2.22b. The top part of this gang name on a middle-layer wall block in Lady Arbuthnot's

Chamber has been cut off in order to properly fit the block into the chamber wall.

If we first consider the upper masonry (fig. A2.23, next page, *blocks a* and *b*), we notice that block *b*, placed to the immediate upper right of block *a*, sits on a slightly higher bedding layer. In order to fit block *b* (with the cut crew name) into the wall with the required height, it appears that block *a* required a small L-shaped notch to be cut from its top-right corner to make a level bedding layer for block *b*. It stands to reason that in cutting this notch to create a level bedding layer for the upper blocks, the stonemasons doing this would have known at this time:

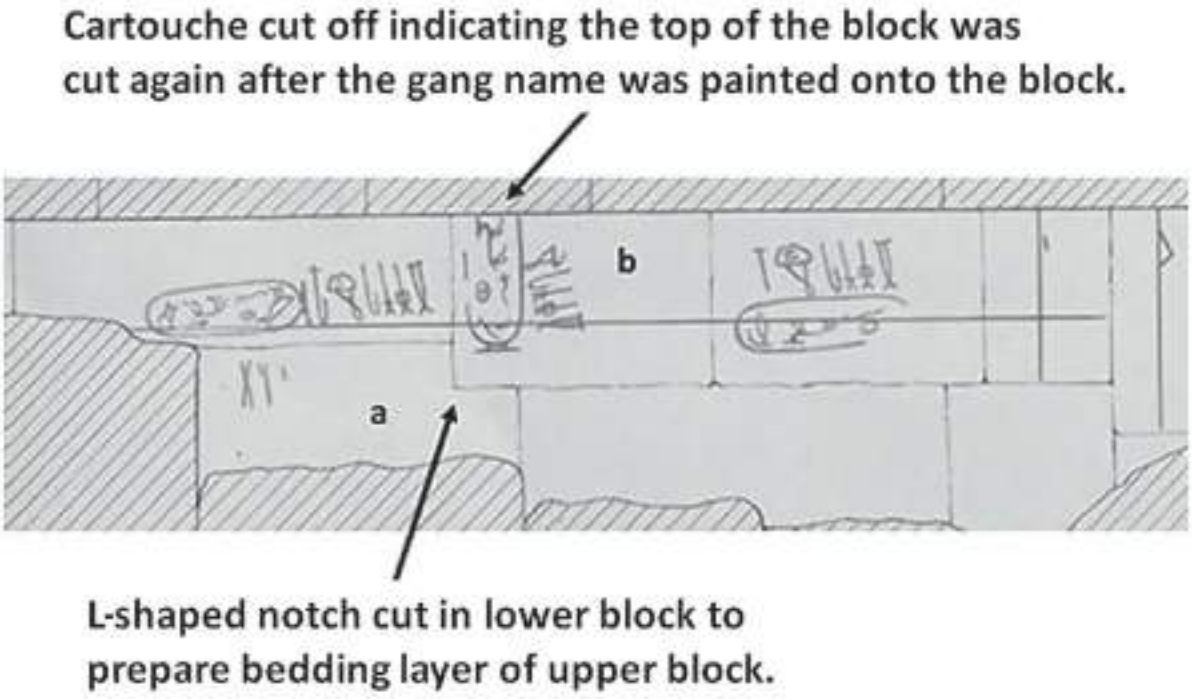
Cartouche cut off indicating the top of the block was cut again after the gang name was painted onto the block.
b
a
L-shaped notch cut in lower block to prepare bedding layer of upper block.

Figure A2.23. Particular wall blocks of Lady Arbuthnot's Chamber where an L-shaped notch has been cut.

1. The distance (height) from this bedding level to the underside of the chamber ceiling.
2. The height of block *b* (at that time and presumably before the top was trimmed off).

Given that the builders would have known these variables, then surely, simply cutting a slightly deeper bedding layer (which had to be cut anyway) in the lower layer of blocks would have entirely eliminated the need to also slice a chunk off the top of the upper blocks (fig. A2.24). By not cutting the slightly deeper bedding layer in the lower blocks, the builders effectively gave themselves double the work. And that makes no sense whatsoever.

But when we now consider the middle row of blocks in this chamber wall, things become even more peculiar, whereby we find another stone where an entire row of signs forming part of the gang name has been sliced away (fig. A2.25, *block 1*), suggesting that the top part of this stone was also cut away after the stone had been finished and dispatched from the quarry (upon arriving at the pyramid for installation).

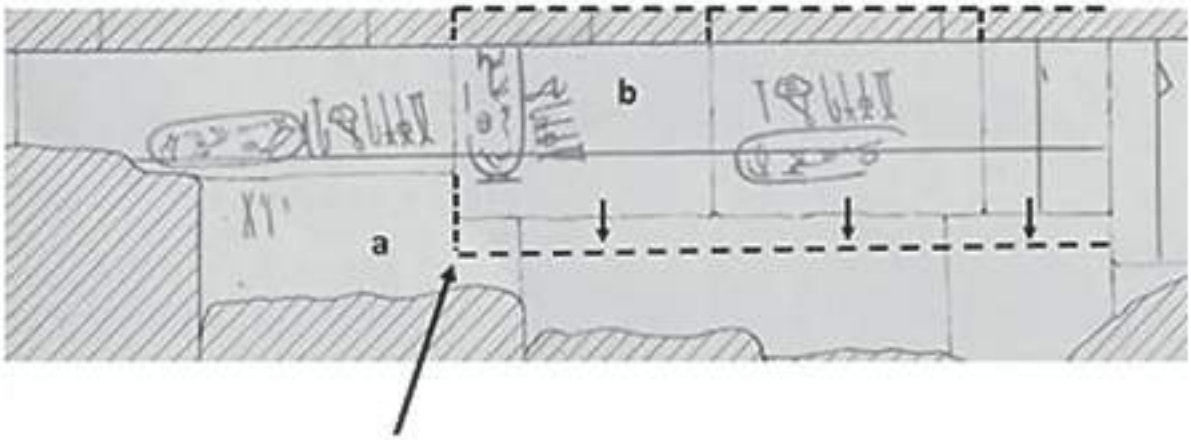
b
a
Had a deeper L-shaped notch been cut in the lower block (a) (creating a deeper bedding layer) this would have eliminated the need for the upper blocks to be cut again.

Figure A2.24. By failing to cut a deeper bedding layer in the lower blocks, the builders gave themselves double the work.

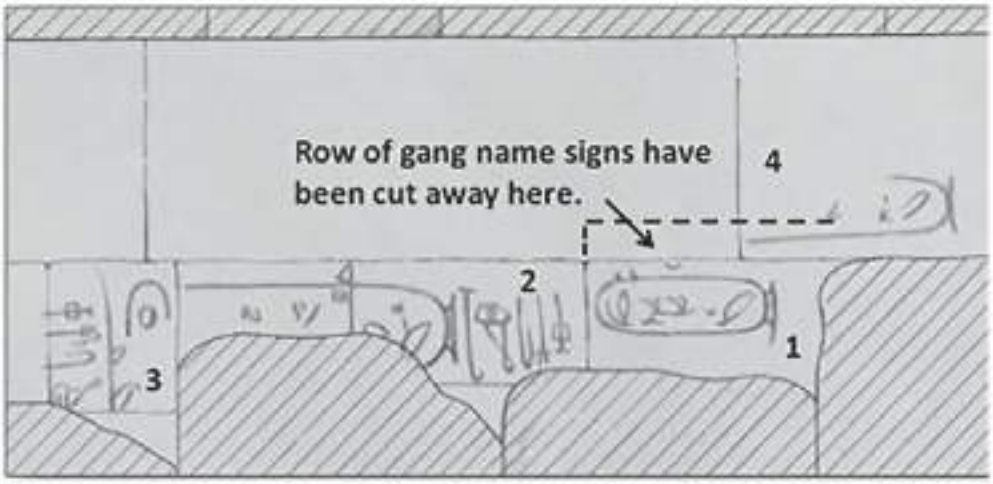

Figure A2.25. An entire row of gang name signs has been cut away from the top of block 1.

This suggests that the height of block 1 (and presumably all of the blocks in this bedding layer) had to be trimmed down by a substantial amount, probably somewhere between six to twelve inches, or possibly more, in order to lower the upper layer of blocks and bring the wall height down to the desired level. Except, however, this error then becomes compounded by the fact that the top row of blocks *also* appears to have required a reduction in height, which raises the very obvious question, Why cut the blocks in both rows? If it was found that this preassembled wall, upon reassembly at the pyramid, needed to be lowered in height by a certain amount, then why give yourself double the work by reducing the height of two rows of wall blocks (presumably by similar smaller amounts) when reducing the height of just one row (by the required total amount) would have achieved the same end result?

A similar situation also arises with the painted marks on blocks 2, 3, and 4, all of which appear to have been slightly truncated on their left side, perhaps indicating that the length of these preassembled wall blocks had to be

shortened after having arrived at the pyramid for reassembly. Once again, however, it makes little sense to shorten the length of two separate blocks sitting on the same course level by smaller amounts when shortening just one of them by the required larger amount would have achieved the same result for half the effort.

All of which raises the obvious questions: How is it possible that the stonemasons at the quarry who originally measured and cut the blocks to make up this chamber wall appear to have gotten it so terribly wrong, both in terms of height and length? Are we to believe that they were so utterly incompetent in measuring and cutting these wall blocks to assemble a wall of a required dimension that many of the blocks had to be reworked upon arriving for installation at the pyramid? And to compound matters, when the blocks finally reached the pyramid and it was noticed that the wall was too high and too wide, why did the stonemasons there cut *two* courses of blocks by smaller amounts instead of the more efficient single, larger cut to the relevant blocks? It is seemingly incompetence laid upon incompetence by skilled workers who had, as stated earlier, already successfully completed three chambers of similar dimensions, so we have to assume that they knew what they were doing and that they had, by this time, developed the best and most efficient means of achieving their objective.

Now, there may very well be some set of circumstances that can somehow bring all of the above anomalous observations into a perfectly rational explanation, such as, for example, the repurposing of blocks from some other construction that had previously been abandoned but that still bore the names of the gang that had originally been designated to set those blocks in place. Perhaps this other theorized construction required larger wall blocks, and, once they were abandoned, these larger blocks were simply scavenged and cut down to the required size in the mason's yard at the quarry to suit the smaller dimensions of the new wall in Lady Arbuthnot's Chamber, thereby perhaps explaining the truncated nature of the gang names we see today in Perring's and Rowe's drawings of the painted block marks in this chamber.

While this explanation remains possible, it has to be said that there are many questions and complications in this scenario that render it unlikely, not least of which is the presence of the many other and more difficult to explain anomalies that we find associated with these very same painted marks in this chamber and in the other Vyse Chambers. Given all of this, then the more likely explanation here is that what we may actually be witnessing is nothing more than the further handiwork of a small group of determined and devious fraudsters. If a fraudster wanted to give the impression that the painted markings on these wall blocks were truly ancient, then what better way to achieve this than by painting the gang names onto the blocks in the truncated manner that we observe them? This gives the impression that the gang name must have been cut off when the block was *first cut* at the quarry, ergo giving the illusion that the painted marks are contemporary with the original block cut and thus that the marks themselves must be genuine artifacts from the time of the pyramid's construction. It is an ingenious illusion, for sure, but all things considered, almost certainly not something the builders would ever likely have done.

CAMPBELL'S CHAMBER'S ODD NUMBERS

As explained in chapter 5, early hieratic letters and numerals essentially consisted of cursively painted equivalents of the sculpted hieroglyphic signs, and, as such, their early orthography was not so far removed from their counterpart sculpted signs, although, as the millennia passed, the two forms would diverge greatly from each other. One of the key differences between the early hieratic script and its sculpted hieroglyphic equivalent is that hieratic script (like that allegedly discovered in the Vyse Chambers) would always be written and read only from right to left—never from left to right. On the other hand, monumental sculpted hieroglyphics could be written and read from left or right, and the flow of the reading for a particular line of hieroglyphic text would usually be indicated by the direction in which some animal or person in the script was facing. Both forms would also be read from top to bottom.

In 1837, hieratic script was barely understood and most certainly would not have been known to Vyse, let alone understood by him. Vyse, as we see from his published works, regarded the script in these chambers merely as painted hieroglyphics (by the quarry gangs) rather than painted hieratic marks. This is to say that Vyse would wrongly have believed these hieratic marks were but painted hieroglyphics and, as such, could be written and read from *either* direction—a lack of knowledge that was to bring Vyse into making a grave error in forging some hieratic number signs onto the roof blocks in Campbell's Chamber.

To anyone viewing these painted numbers they will immediately observe that they are upside down. The conventional explanation for this apparent haphazard arrangement of these signs (and the signs throughout these small chambers) is that the marks would have been painted onto each block upright at the quarry and that the

builders of these chambers, upon receiving the pre-shaped blocks, would have rotated the blocks to find the most efficient means of placing each within the chamber, a notion that runs contrary to Roth's theory that the walls would have been preassembled at the quarry and the gang's name painted onto each block at that time. Given also the particular shape of these roof blocks in Campbell's chamber, there is actually only *one* way that they could have been installed. It is further worth noting here that were all of these blocks in all the Vyse Chambers oriented with their writing the right way up, we would find that all the text from all these chambers has been written onto each block in a right-to-left manner, as was customary with hieratic script. In this regard, Hans Goedicke writes, "The individual signs, when determinable face right. This direction becomes universal for all practical purposes; there is one hieratic inscription dating to the sixth dynasty which is written facing left."[19]

In hieratic script, a vertical stroke | symbolizes the value 1 while a ∩ sign symbolizes the value 10, thus | | ∩ = 12 and | | | ∩ ∩ = 23. In hieratic numbers the units with the highest numerical value are always placed to the right of the units with lower values (the highest values are always placed farthest right and read first). And this is where we see Vyse made a grave mistake, for if we rotate the painted hieratic numbers in these chambers so that they become upright, what we then find is that the lower unit value (|) has been incorrectly placed to the *right* of the higher ∩ value, which has been incorrectly placed to the left (fig. A2.28), meaning that the lower value will be read first, and that is simply wrong in hieratic script.

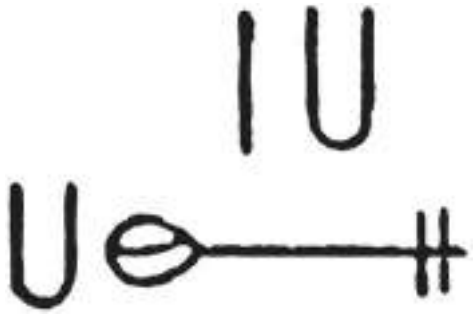

Figure A2.26. Hieratic number sign for the number 21 painted onto the roof blocks of Campbell's Chamber showing the actual upside-down orientations (Image based on original by Alan Rowe, 1931)

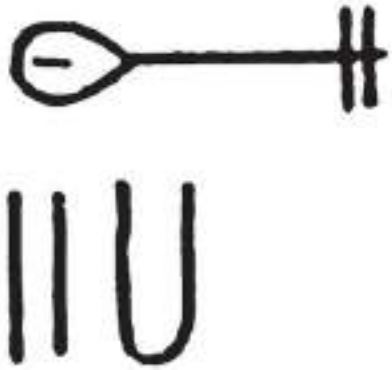

Figure A2.27. Hieratic number sign for the number 12 painted onto the roof blocks of Campbell's Chamber. (Image based on original by Alan Rowe, 1931)

Critics of the fraud theory have proposed that these back-to-front numbers were actually intended to be read sideways, from top to bottom (fig. A2.29). In this top-down reading of the sideways-rotated number sign, then the higher unit value (the ∩) is now placed above the lower unit values and thus read first.

However, there are considerable problems with this proposal. When we consider all of the other signs painted onto the blocks within the various Vyse Chambers and how they would have originally been painted upright onto

the blocks when at the quarry, we find that every line of text has been written linearly, right to left and *not* top to bottom. This proposal asks us to accept that the quarry scribes were writing their signs, without exception, onto the blocks in these chambers horizontally, but for these particular number signs, for some inexplicable reason, they decided to change to writing their signs onto the blocks vertically. This seems highly unlikely.

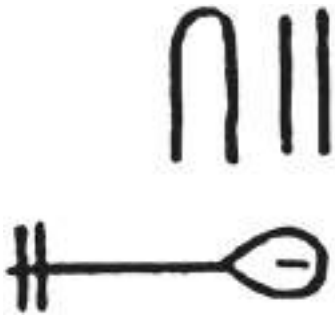

Figure A2.28. Rotating the numbers upright shows that this number on the roof block of Campbell's Chamber has been incorrectly written with the higher value placed to the left instead of to the right. (Image based on original by Alan Rowe, 1931)

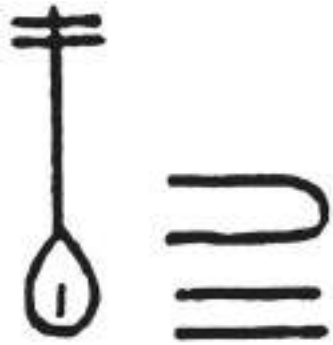

Figure A2.29. It has been proposed that the hieratic signs can be rotated sideways in order to fix the anomalous order in which the sign is read when upright. (Image based on original by Alan Rowe, 1931)

This observation aside, it is known that the ancient Egyptians did actually write hieratic numbers sideways in the manner shown in figure A2.29, but this, however, was only ever done when writing calendar days of the month. In his book *Numerical Notation: A Comparative History*, Stephen Chrisomalis writes, "When used to express days of the month, hieratic numerals, like hieroglyphic numerals, were often rotated ninety degrees counterclockwise to reflect their function. Given the nature of the Egyptian calendar, these forms exist only for numerals less than 30."[20]

However, when expressing calendar days, these number signs are *always* accompanied by the solar disc sign to signify the function of the number signs (i.e., that they reflect the ordinal days of the month rather than a cardinal number; fig. A2.30).

Figure A2.30. Hieratic script showing the year 16 (with solar disc) and the first month (with upright numerals and solar disc) but with only the numerals for the day of the month (day 13) rotated 90° (sideways). (Image based on original drawing by Karl Lepsius; lithographer: Maximilian Weidenbach from Siliotti, Guide to the Pyramids of Egypt, 50.)

We find this convention also used in the papyri cache recently discovered at Wadi al-Jarf (fig. A2.31) and at Abusir (fig. A2.32).

This convention of placing calendar day numbers on their side is confirmed by the Egyptian language expert Sir Alan Gardiner, who writes, "In hieratic the tens and units, when referring to the days of the month, are invariably laid on their side."[21]

Gardiner's comment is consistent with the old hieratic paleographic record. As stated above, to represent the days of the month, the ancient Egyptians used the unit and ten number signs turned on their sides. However, on no occasion in the old hieratic paleographic record do we find the ∩ sign, when used as a cardinal number, i.e., *without* the solar disc, turned on its side.

Figure A2.31. Author's impression from the Wadi al-Jarf papyri with hieratic script showing (from right) *calendar days 22–24, each day with a solar disc above the number value; the signs are rotated 90° (sideways).*

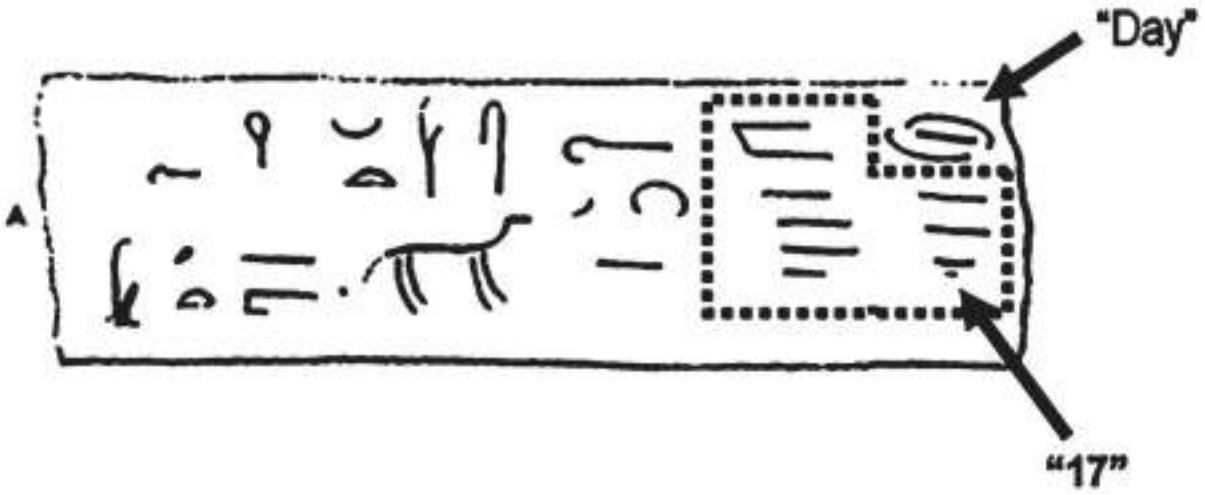

Figure A2.32. Date signs in the pyramid of Neferirkare at Abusir. The sideways calendrical date signs (dotted area) *are accompanied with the hieratic solar disc sign for a calendar " day"* (top right). *Vyse,* Operations Carried On at the Pyramids, *vol. III, 20. Note: a clearer rendering of these date signs can be viewed in Dobrev et al.,* Old Hieratic Palaeography I, *sign NE08 on page 31 and 68.*

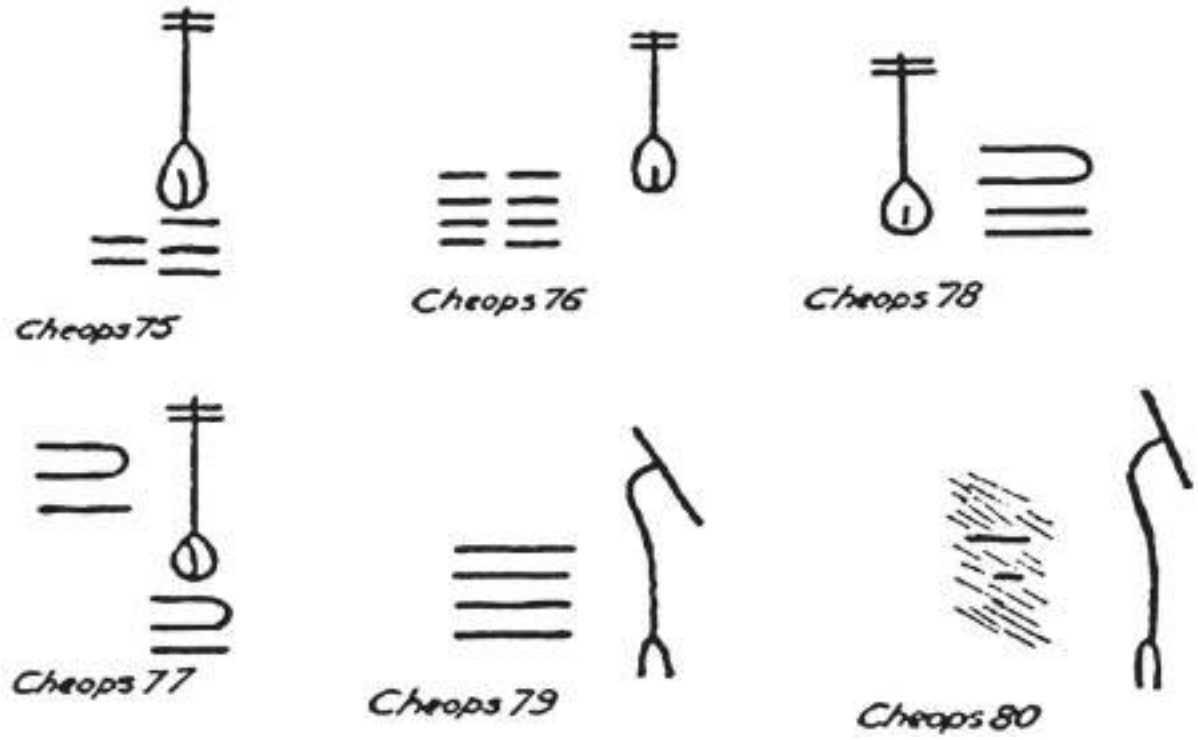

Figure A2.33. Hieratic numbers painted onto the roof blocks of Campbell's Chamber. None of these number inscriptions show any evidence of the solar disc sign being present to indicate that the numbers were to be read sideways, as dates. (Image based on original drawings by Alan Rowe, 1931)

Given the complete absence of the solar disc sign from all of the number signs in Campbell's Chamber, it is therefore highly unlikely that these number signs represent calendar days. As such, these signs should *not* be read sideways (from the top down) but upright from right to left. And since ancient Egyptian scribes were unlikely to

write the hieratic cardinal number ∩ upright with the lower unit values placed on the right, then the number signs in Campbell's Chamber are clearly anomalous.

What we are therefore likely witnessing here is the work of someone who did not understand that ancient Egyptian hieratic script, unlike hieroglyphics, can only be read and written from right to left. That genuine hieratic numbers were simply flipped (as opposed to rotated 180°) and painted onto these blocks to make them look as though the signs were painted onto the blocks at the quarry is one simple way of explaining this anomaly (fig. A2.34).

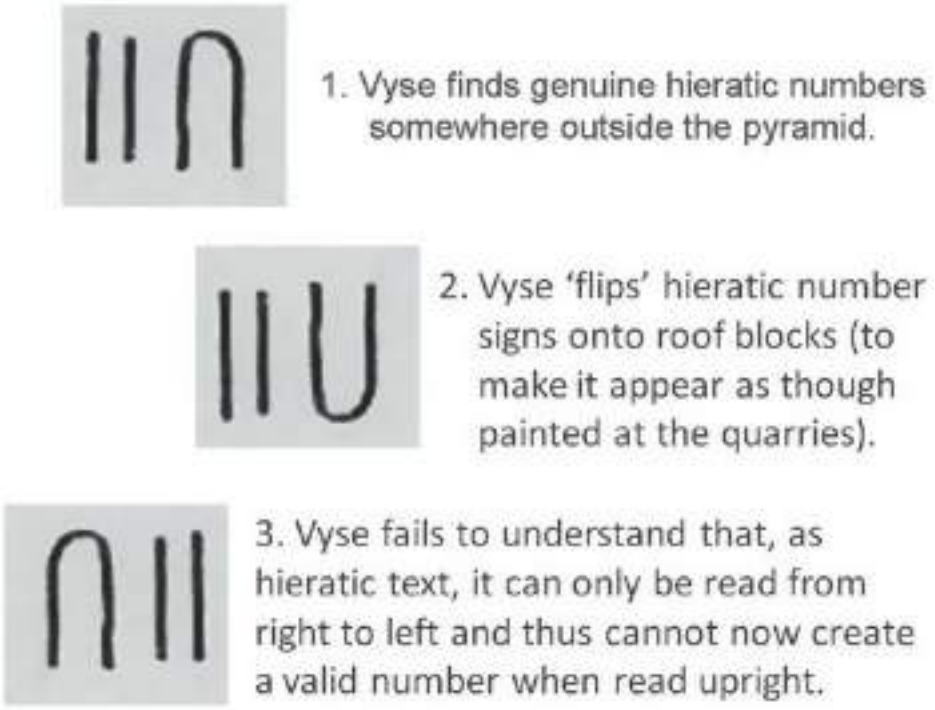
1. Vyse finds genuine hieratic numbers somewhere outside the pyramid.
2. Vyse 'flips' hieratic number signs onto roof blocks (to make it appear as though painted at the quarries).
3. Vyse fails to understand that, as hieratic text, it can only be read from right to left and thus cannot now create a valid number when read upright.

Figure A2.34. A possible explanation for the anomalous numbers in Campbell's Chamber.

A second possibility is that Vyse found a means to teach himself how to write simple ancient Egyptian numbers. In his quest for information about ancient Egypt (see chapter 5), the colonel may have inadvertently stumbled across scholarly material that would have shown him how to do this. Such a book could have been Wilkinson's *Materia Hieroglyphica* (1828), in which, as early as page three, Wilkinson presents the numbers 48 and 20 written in ancient Egyptian hieroglyphic form (fig. A2.35).

Being a hieroglyphic inscription, the text on this page of Wilkinson's book has been written left to right (as opposed to right to left in hieratic script). As a result of this, the ∩ (10) value is presented before the | (1) value. Had Vyse read this hieroglyphic inscription on this page, then he could very easily have worked out how to write ancient Egyptian hieroglyphic numbers such as ∩ | | (12) or ∩∩ | (21), and so on. However, what he would also have mistakenly understood from this inscription in Wilkinson's book is that the hieratic ∩ (10) should be placed to the *left* of the | (1) sign. At this early stage in the understanding of ancient Egyptian writing, Vyse simply would not have been aware of the difference in the reading and writing order between hieroglyphic and hieratic inscriptions. And so, if he had used Wilkinson's example hieroglyphic inscription as a teaching aid, it is easy to see how he could have formed the Egyptian ∩ | | (12) and simply rotated this number 180° to wrongly give | | and had this painted onto the roof blocks of Campbell's Chamber, along with the other numbers on other blocks. A simple mistake being made through a complete lack of knowledge of hieratic script and of the grammatical rules that we understand today between hieroglyphic and hieratic text—this just wasn't known in Vyse's time.

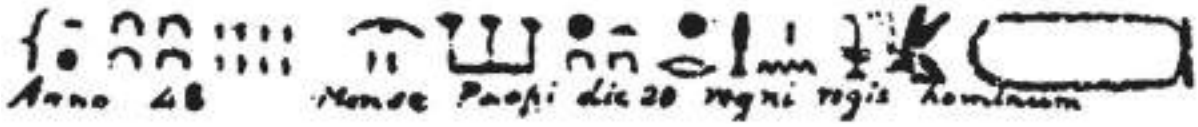

Figure A2.35. Page three of Wilkinson's Materia Hieroglyphica *presents the numbers 48 and 20 written in Egyptian hieroglyphic form.*

THE SOURCE DRAFTS

One of the main issues critics of the hoax hypothesis often cite is the absence of the original source marks that Vyse is hypothesized to have used as his template to copy into the chambers he blasted open within the Great Pyramid. Unless the original source text can be found, the critics assert, there is simply no case to answer. It is a ploy that has become the standard means of critics to dismiss the hoax hypothesis in its entirety.

But it's a patently ridiculous argument. Imagine, for example, we were to find someone lying in the street with gunshot wounds, surrounded by empty shell casings, with gunshot residue on his clothes and with eyewitnesses to the shooting. Can we seriously argue that no shooting ever took place simply because the gunman ran off with the primary evidence—the gun? Isn't there sufficient circumstantial evidence left behind at the crime scene for us to reasonably conclude that a crime had indeed occurred? Do we really need to find the primary piece of evidence—the gun—in order to prove a shooting had occurred?

The fact of the matter is that even in the absence of the primary evidence—Vyse's source material—there exists a substantial body of circumstantial evidence that is highly indicative of a fraud having been perpetrated by Vyse and his closest assistants within the Great Pyramid in 1837. But even in the absence of the source material (Vyse's secret cache), we can be reasonably certain that the original source material appears to have been obtained locally because none of the painted inscriptions on these stone blocks had ever been published in any book at that time; they were just too obscure in nature.

Furthermore, as noted previously, finding out where Vyse actually obtained his draft material from will itself determine the likelihood or otherwise of any such source material having survived and being found. As stated in appendix 1, most likely Vyse would have had all such source material broken up and discarded. We know, for example, that Vyse found particular groups of painted marks on stones among the rubbish on the north and south sides of the Great Pyramid, as well as a small stone partially inscribed with the cartouche of Khufu on the pyramid's north side. Had any of these stones presented Vyse with the painted quarry marks we find today in the Vyse Chambers, then it would have been easy enough for Vyse to have had those stones broken up and discarded elsewhere or simply to have had the painted markings on the stones removed, thereby obliterating any trace of the source. Indeed, the colonel may well have resorted to even more drastic measures, as we read in his private journal entry of April 24, where he writes:

> *M. 24*
>
> *. . . blew up stones north front of pyramid . . .*

This blowing up of stones with gunpowder outside the pyramid may well have been for an entirely innocent reason—or it may have been to break up incriminating evidence in order that it might be more easily removed and dispensed with. The truth of Vyse's source is perhaps hinted at when we consider this curious passage from May 18, 1837, in Vyse's published book:

> Dr. Walne applied, through Mr. Perring, for copies of the characters found in the Great Pyramid, in order to send them to M. Rosellini. I requested Mr. Perring to express my regret that I could not accede to his request, and received from that gentleman a satisfactory and obliging answer.[22]

Dr. Alfred Septimus Walne is a curious character who apparently departed for Egypt in 1836—about a year after Colonel Vyse first arrived. Although Walne was originally a practicing medical doctor (Vyse's private journal tells of him receiving from Walne some boxes of collyrium, a medicated eyewash, for the colonel's workers), he was appointed as the British vice consul at Cairo in June 1837 and full consul four years later on August 16, 1841, in which capacity he was largely responsible for encouraging Abbas Pasha, the *wāli* (ruler) of Egypt, to construct the railway line between Alexandria and Cairo and then on to Suez.[23]

Walne was clearly a fairly senior figure in British political circles of this period, with important connections that went far and wide. So why then did Vyse refuse Walne copies of the quarry marks from the Great Pyramid?

Alas, Vyse does not write of his reason for this refusal, but primacy of publication may have been one motivation to decline Walne's request, perhaps fearing that Walne's friend, Ippolito Rosellini, would publish the discovery of the quarry marks before Vyse had done so himself. This possible motive seems unlikely, however, because Vyse could simply have secured an assurance from Walne and Rosellini that the Italian would not publish anything regarding the marks until after Vyse had done so. This would not have been an unreasonable request and a condition that Rosellini likely would have acceded to.

It is puzzling also because we know that Vyse had no qualms in giving copies of the quarry marks, along with the cartouches, to others, including the shereef of Mecca and Samuel Birch of the British Museum, who eventually went on to comment on the marks in Vyse's published account. Thus his reluctance to extend this courtesy to the British vice consul in Egypt seems even more curious.

Furthermore, on May 19, 1837 (the day after refusing Walne's request), Vyse had assembled a group of five witnesses, which included himself, Sir Robert Arbuthnot, Brettel, Raven, and Hill, to testify to the discovery and accuracy of the various quarry marks present on the walls of the various chambers that had been opened up to that point. This attestation from these witnesses would have made it very difficult indeed for anyone, including Rosellini, to even attempt to usurp and claim Vyse's discovery.

So if not primacy of publication, what other motivation might Vyse have had in refusing Walne's request for a copy of the quarry marks? Interestingly, during his time in Egypt, which lasted until his resignation in 1861, we learn that Walne had interests that went beyond his official capacity as vice consul for the British government. Here, for example, we read in *The Literary Gazette* from December 1836: "Egyptian Society—The *Augsburg Gazette* states, that a scientific society under this name has been formed at Cairo, by a British physician, Mr Alfred Walne, long resident in Egypt, and *a zealous student of hieroglyphic and Coptic literature.* The Society has hired a house for the reception of travellers, and are collecting a library of books likely to be useful to such as explore the Egyptian provinces in Africa and Asia. One Turk has subscribed, but the members are chiefly English, with some French and German"[24] (emphasis added).

And in the periodical *Voyages and Travels,* J. L. Stephens writes: "The author is personally acquainted with many of the members [of the Egyptian Society], particularly with Mr Walne, Hon. Sec. who, besides being a gentleman of high literary and professional attainments, has devoted much attention, and with great success, to the study of hieroglyphics and Egyptian antiquities."[25]

Is it mere coincidence that the *Augsburg Gazette* article was published just two months after Vyse had procured his books by Champollion and Rosellini (at considerable cost), which he did with some other unidentified persons? From this article, we learn that Walne was something of a "zealous student of hieroglyphic and Coptic literature" and that, as stated previously, he also had connections to Rosellini, the foremost authority of the day in such matters. A consideration for Vyse with Walne's request may have been the fact that the good doctor had been on the ground at Cairo since before and during the colonel's 1837 explorations and would almost certainly have visited the Giza pyramids (probably on more than one occasion), perhaps pursuing his own antiquarian interest by searching for hieroglyphic marks on the pyramid's core stones or within the rubble around the base of the monuments.

Thus, the reason for Vyse's reluctance to give copies of the quarry marks to Walne may not have been so much to do with any concerns Vyse may have harbored with the marks coming under the scrutiny of the learned Rosellini but rather that Walne, who had been on the ground in Cairo and Giza and who possessed a great interest and knowledge in hieroglyphic script, might have recognized that the inscriptions presented to him by Vyse were identical to markings that Walne had perhaps seen himself on stone blocks around the Great Pyramid; as such, Walne could have become suspicious of Vyse's activities. Vyse simply could not know just how extensive Walne's knowledge was or what he may have seen around the Great Pyramid. As such, Vyse, in such a circumstance, would

have had little choice but to refuse the one man in Egypt at that time who may well have possessed the potential to investigate and expose what Vyse was really doing inside the Great Pyramid. In short, Walne may have represented a risk that Vyse simply didn't need to take—and clearly opted not to. But there's a second possibility.

THE "W FIGURES"

As stated earlier, there is a second possible reading of Vyse's private journal entry of April 27, in which he writes ". . . [?], the Sheikh was inside, [& drew] figures."

Such are the vagaries of Vyse's handwriting style that it is possible that this passage could also be read as follows:

. . . [?], the Sheikh was inside, [the W] figures,

on the western side of calcerous stones as [?]

If this second possible reading is correct, then we are left wondering what Vyse means by "the W figures."

It is possible that this somewhat vague statement, "the W," might, if correct, be a clue to a wider conspiracy. The comments of PücklerMuskau that Vyse wrote about in his private journal, whereby the Prussian predicted back in February that Vyse would find an inscription in "our apartment" (i.e., Wellington's Chamber) is certainly suggestive that Vyse's intentions may have been known beyond Vyse alone. Pückler-Muskau even published in at least two books his accusation that the marks Vyse presented to the world were likely only to have been painted recently and that the colonel had merely pretended to have discovered them in these chambers.

Vyse, as we know, spent a considerable sum of money buying books by Champollion and Rosellini and makes the curious comment "*our* first books" in his journal, suggesting that others were involved and thus potentially indicating a wider conspiracy. If that was the case, then who else might have been involved? Does "the W figures" refer to a person? Certainly, it would have been helpful to Vyse to have had someone who was knowledgeable in matters of ancient Egyptian hieroglyphics. And, as we have learned, Walne was just such a person. Was it then Walne who supplied Vyse with appropriate inscriptions to paint inside the Vyse Chambers? Is Walne the mysterious "W" that Vyse is referring to when he (possibly) writes, "the W figures" in his private journal entry of April 27? Of course, if there was such a relationship between Vyse and Walne, we might expect other comments regarding Walne to appear in Vyse's private journal, comments that would indicate a much closer association between them. And we do.

On May 8, 1837, two days after having breached Lady Arbuthnot's Chamber, Vyse writes the following curious passage in his private journal, where the currency would likely have been Egyptian pounds, which were first introduced to Egypt in 1836.

M. 8

. . . Wrote to Dr Walne about money, Mr Hill's Bill up 830 £ [?] but had about 15 [?]. Mr Raven

250 £ from [?] Paid Mr Hill 150 £ . . .

It has long been assumed that Vyse was the sole funder of his explorations at Giza, supposedly spending something in the order of £10,000 of his personal fortune—a not inconsiderable sum in 1837. Why on earth then is Vyse writing to Walne, seeking from him, it seems, money for Hill and Raven? Helping to fund Vyse's two closest assistants strongly suggests that Walne had some interest in Vyse's enterprise.

And, of course, if there was a wider conspiracy with Vyse that involved Walne, then we have another possible reason why Walne would have wanted to see the chamber hieroglyphics and why Vyse would have been reluctant to send them to him. Walne, if he *was* the source for the quarry marks Vyse subsequently had painted into the various chambers, may simply have been wanting to check that the hieratic inscriptions he had theoretically given Vyse had been copied correctly. Vyse, on the other hand, would have wished to keep himself and his operations distant from Walne (his possible source) to perhaps ensure plausible deniability. Had a third party seen Walne's original source marks alongside copies of the marks Vyse supposedly discovered and noticed that they were virtually identical, then eyebrows would surely have been raised. To eliminate such a risk, one must simply keep control of the discovery and entirely avoid sending copies back to your original source, where a third party might catch sight of them.

Admittedly, Walne's possible clandestine participation in Vyse's dubious activities at Giza is entirely speculative here; we will likely never know with any certainty to what extent, if any, Walne was involved with Vyse's nefarious activities. But it remains, nevertheless, curious indeed that there evidently existed some level of financial involvement between the soon-to-be British vice consul and Vyse (as well as Vyse's two closest assistants) and that not a single word of this partnership is ever even hinted at in Vyse's published account.

BURNING TRUTH

Critics of the Vyse forgery hypothesis often insist that if the colonel had indeed perpetrated this fraud within the Great Pyramid and that the truth of this could be shown on various incriminating pages of his private journal, then the first thing Vyse would have done upon returning to England would have been to destroy his diary—the evidence — perhaps by throwing it into the fire (fig. A2.36).

It may be, of course, that Vyse fully intended to do this, but he most certainly could not have done so immediately upon returning to England from Giza as he needed these pages of his private journal as the basis to write up his manuscript for publication, which, as a result of a number of delays, did not occur until 1840, some three years or so after departing Egypt. And he would likely have felt the need to hold on to his journal for some time afterward should any matter have arisen from the published account that perhaps needed clarification from his private notes; not every detail in his private journal, as we know, went into print. As such, there would have been good practical reasons for him to hold on to his private journal long after publication.

Figure A2.36. The parlor with its open hearth in Vyse's ancestral home at Stoke Poges, Buckinghamshire, England. (Photo: Scott Creighton)

Furthermore, these pages were private and intended for the colonel's eyes only. He would publish only what he wanted people to know, censor the rest, and quite likely keep the journal locked away in his private writing bureau. And just like anyone's personal diary, Vyse would almost certainly have had an emotional attachment to it, pages filled with fond memories and a tangible reminder to him of an important time in his life. As anyone one who keeps one will know, personal diaries are difficult to let go of.

But even if Vyse *had* planned to destroy his journal, or even just certain pages of it, he may well have held it over the fire in the parlor of his home at Stoke Poges but, in the end, just couldn't bring himself to let go, resolving to do the deed the following day. Alas, however, one day his tomorrow never came when the colonel departed this Earth with his private journal remaining fully intact, locked in the drawer of his writing bureau, an artifact that would eventually find its way into the public domain and the full glare of international scrutiny.

Footnotes

*1 Throughout this book, we will sometimes use the names Cheops, Khufu, Suphis/ Saophis, or Sūrīd. According to Egyptologists, these different names all likely refer to the same historical person.

*2 Discovered in 1837 by the British pyramid explorer Colonel Richard William Howard Vyse.

*3 There is a caveat to this that will be discussed in chapter 6.

*4 You can find a detailed explanation of this concept in my earlier book *The Secret Chamber of Osiris: Lost Knowledge of the Sixteen Pyramids*, 182–98.

*5 Wikipedia defines a tippe-top as "a kind of top that, when spun, will spontaneously invert itself to spin on its narrow stem." They were invented in 1950 by the Danish engineer Werner Ostberg.

*6 For more on Dodwell's research, see my earlier book *The Giza Prophecy*, 186–89.

*7 Pyramid G1 is sometimes also referred to as GI, G2 as GII, and G3 as GIII.

†8 Skyglobe 3.5 has since been found to have some critical flaws, such as a failure to account for the proper motion of stars and a failure to account for such issues as nutation, aberration, and refraction, all of which compromised its ability to give highly accurate star mappings and dates.

‡9 Bauval would later modify this date to circa 11,000 BCE, although, using more recent software, the G1–G2 alignment becomes more accurate nearer to 11,800 BCE.

*10 The flood myths from this period coincide with the 8.2 kiloyear event, a dramatic cooling of the Earth believed to have been caused by a large meltwater pulse from the final collapse of the great Laurentide Ice Sheet, which caused global sea levels to rise by up to thirteen feet.

*11 For more on these recovery items, see *The Secret Chamber of Osiris: Lost Knowledge of the Sixteen Pyramids*, 147–52.

*12 An inscription on the famous Inventory Stela, refers to Isis as being the "Mistress of the Pyramids." If the pyramids represented the allegorical Osiris, then, as the wife/consort (and sister) of Osiris, this appellation makes perfect sense: The Mistress of the Pyramids was the Mistress of Osiris (the Pyramids).

*13 The number of body parts of Osiris increased over time. This is to be expected, of course, as over time more and more pyramids would have been built by succeeding pharaohs.

*14 Tutankhamen is the only undisturbed burial of an ancient Egyptian king thus far discovered (not in a pyramid but in an underground tomb in the Valley of the Kings).

*15 These painted markings are technically defined by Egyptologists as cursive old hieratic or linear hieroglyphic script.

*16 An ancient Egyptian king could have as many as five different names or titles.

*17 The ancient Greek historian Diodorus Siculus contests this claim, stating that neither Khufu nor Khafre were buried in their respective pyramids.

*18 See my earlier book *The Great Pyramid Hoax* and the appendices of this book.

*19 This is documented in more detail in my previous book, *The Secret Chamber of Osiris: Lost Knowledge of the Sixteen Pyramids*, 51–81.

*20 From around the Twelfth Dynasty, this religious concept was extended with the introduction of decorated anthropoid coffins and sarcophagi that served also as the ka double.

*21 This inscription raises an interesting question as to why Khufu would have required an "embalming house"

years before his own death. Was this embalming house perhaps a place where the ancestor mummies were sent for checking and possible re-embalming before being placed within the Big Void's Hall of the Ancestors?

*22 The Well Shaft is believed by Egyptologists to have been the exit or escape route used by the pyramid builders after they had blocked access to the pyramid's upper chambers by sliding granite blocks believed to have been stored in the Grand Gallery down the Ascending Passage, which by doing so they would have otherwise sealed themselves within the structure.

*23 You can explore this further in *The Secret Chamber of Osiris: Lost Knowledge of the Sixteen Pyramids*, 71–81.

†24 You can find out more from *The Secret Chamber of Osiris: Lost Knowledge of the Sixteen Pyramids*, 204–11.

*25 As we saw in chapter 3, determining a precise construction date using the main pyramid alignments and star shafts is no longer possible since the second, more recent, pole shift event would have overwritten much of the Earth's former geodynamic properties that would have been recorded into the architecture of the main pyramids shortly after the first pole shift event.

*26 The orthodox view that these satellite pyramids were built as queens' tombs seems highly questionable due to the fact that the pharaoh Khafre had more queens than either Khufu or Menkaure, and yet there are no so-called queens' pyramids alongside pyramid G2 (attributed to the pharaoh Khafre) for any of his five known queens.

*27 For more on how and perhaps why these pyramids have eight sides, see *The Giza Prophecy*, 215–16.

*28 The "Wow!" signal was a strong narrow-band radio signal received on August 15, 1977, by Ohio State University's Big Ear radio telescope in the United States, which was then used to support the Search for Extraterrestrial Intelligence (SETI) program. The signal appeared to come from the direction of the constellation Sagittarius and bore the expected hallmarks of extraterrestrial origin.

*29 This implies, of course, that the designers of the stellar time line understood the mathematical constant pi as a decimal fraction.

*30 This small error may have been introduced by the designers as a consequence of the need to encode into the stellar time line the significant "wow" signal. Had they encoded the actual value of, say, 11,357 years (11314 + 43) then this value would not have stood out as a beacon, and this important data would likely have gone unnoticed; a slight compromise of accuracy to facilitate and improve the chances of discovery.

*31 The ancient Egyptians themselves believed that their civilization went far back into antiquity, long before the mortal kings, the sages, and the demigods, 39,000 years back to the Zep Tepi (the First Time of Creation), the time of the gods.

*32 See *The Secret Chamber of Osiris: Lost Knowledge of the Sixteen Pyramids*, 51–81.

*33 There is more detail about the construction of these sixteen pyramids in my book *The Secret Chamber of Osiris: Lost Knowledge of the Sixteen Pyramids*, 41–48.

*34 See *The Secret Chamber of Osiris: Lost Knowledge of the Sixteen Pyramids*, 205–11.

*35 Many more details regarding this analysis can be found in *The Great Pyramid Hoax* and in the appendices at the end of this book.

*36 Details about Vyse's quest for Parliament can be found in *The Great Pyramid Hoax*, 32–38.

†37 See *The Great Pyramid Hoax*, 147–50.

*38 The Khufu I boat pit (discovered and excavated in 1954 by Kamal el-Mallakh) was found to contain several vertical Djedfre cartouches but none of Khufu. The Khufu II boat pit, also discovered by el-Mallakh in 1954, was opened and excavated only in 2011 by a Japanese archaeology team from Waseda University. This second boat pit contained just one vertical Djedfre cartouche along with five (vertical and horizontal) Khufu cartouches.

*39 The king's Horus name, Medjedu, was also found in these chambers, but this name was not in the distinctive royal cartouche oval and, as such, would not have been recognized by any scholar of the period, let alone Vyse, as being another name for Saophis (Suphis/Khufu).

*40 The accepted view today is that these two cartouches actually belong to the same king (Khnum-Khuf) and that Khufu is simply an abbreviation of the longer name. Our hypothesis, however, must be based only on what

Vyse could have understood from the state of scholarly knowledge as it stood in 1837. Later information (information that would come after Vyse had already fraudulently placed the two cartouches into the chambers in 1837 and departed Egypt) could hardly have influenced his thoughts and decisions during his presence at Giza.

*41 What did Vyse know and when did he know it? See *The Great Pyramid Hoax,* 173–82.

*42 Later studies of the Sen-Saophis name by the Prussian Egyptologist Karl Lepsius concluded that the "Brother" aspect had actually come about as the result of a scribal error in the king list of Eratosthenes. The finding of Lepsius was published in 1839 and, as such, could in no way have influenced Vyse's thinking and decisions in 1837.

*43 Commenting on these marks in Vyse's book, the Egyptologist Samuel Birch of the British Museum came to this same, erroneous conclusion as it was not known in Vyse's time that this practice only began with the pharaoh Neferirkara Kakai in the later Fifth Dynasty.

*44 All transcribed entries and illustrations are from Vyse's private journal, the Centre for Buckinghamshire Studies Archive Center, London, reference number D121/2/35. Transcribed by the author. Words in square brackets are either uncertain or unknown.

*45 Vyse's published account, as we learned previously, makes it clear that he found painted marks on stones in the debris on the north and the south fronts of the Great Pyramid.

*46 Photographic images of the painted marks from Lady Arbuthnot's Chamber are extremely rare, but of those that have surfaced from this chamber (in books or from TV documentaries), many of the painted marks are very clear and seem no less observable than the painted marks from the other chambers. And, of course, the marks in this chamber were certainly visible and clear enough for Perring and Hill (and later, the Egyptologist Alan Rowe) to observe and make copies of them, so this fact alone begs the question as to how Vyse and Raven could both have missed them entirely on their first visit.

*47 There is no mention here in Vyse's private account (or, indeed, in his published account) of this chamber being breached on this date (May 9), only that Raven and Hill (in the private account) had "gone into" the chamber (thereby supporting the statements elsewhere from Vyse and Perring that the chamber had already been opened before this date). Note also here that the chamber has now been named Lady Arbuthnot's Chamber. The chamber's name seems to have been agreed to on the previous day, May 8, when Vyse had talks with Sir Robert Keith Arbuthnot.

*48 For more on Brewer, see *The Great Pyramid Hoax,* 69–90.

*49 It appears in his private journal that Vyse has transposed the forename and surname of this prince. The name in his private journal was likely intended to have been Prince Hermann von Pückler-Muskau, whom Vyse mentions (with the correct name) a number of times in his published account. More on this prince later.

*50 Vyse sometime would refer to these small chambers he was blasting his way into as "apartments."

*51 This indecipherable name could also be of Arabic origin, such as Mussadiq (one who verifies another) or Mushiq (friend).

†52 There are a few examples elsewhere in Vyse's private account that may be the name Brewer.

*53 Pückler-Muskau's original text had been written in German, and in this English translation, he keeps the German spelling of Vyse (Wyse). In 1846, Vyse was promoted to the rank of major-general, which Pückler-Muskau refers to simply as "major."

*54 This may explain why Perring was not present at the attestation of Hill's facsimile copies of the quarry marks on May 19. It was perhaps feared that Perring might have brought along his own drawings of these painted marks to compare with Hill's and that he would undoubtedly have spotted the sign now missing from the chamber wall and would perhaps have begun asking awkward questions in the presence of Sir Robert Arbuthnot, who, speculatively, may have previously seen Vyse being subjected to some very awkward questions about the marks in this chamber from Witness M on May 10, 1837.

*55 The reader should be mindful that the drawings of the wall markings in these chambers made by Perring and Hill (and later by Rowe) are but impressions of the actual wall markings as observed by these men; they are not photographs nor, indeed, of photographic quality. It is assumed here, however, that the key features in their drawings are sufficiently detailed and accurate enough for the purposes of this particular inquiry.

Endnotes

CHAPTER 1. A TROUBLESOME DISCOVERY

1. El-Akkad, “The Great Pyramid.”
2. Winsor and Ali, “Great Pyramid’s Previously Hidden ‘Void’ Hailed.”
3. Merriam, “An Idea of Exploring the Hidden Chambers in Egyptian Pyramids through Elementary Particles. ”
4. El-Akkad, “The Great Pyramid.”
5. Amos, “‘Big Void’ Identified in Khufu’s Great Pyramid at Giza.”
6. Amos, “‘Big Void’ Identified in Khufu’s Great Pyramid at Giza.”
7. Smith, “Mysterious ‘Big Void’ in Great Pyramid Revealed.”
8. Amos, “‘Big Void’ Identified in Khufu’s Great Pyramid at Giza.”
9. Haridy, “Debate Stirs over Mysterious ‘Void.’”
10. *Journal of Ancient Egyptian Architecture*, “What Should We Think?”
11. Lightbody, “Is the Great Pyramid’s ‘Big Void’ in Fact Caused by Two Construction Space Zones Flanking the Grand Gallery?”
12. Pahl, “Why Is Egypt Not Allowing Archeologists to Examine the Voids?”
13. Amos, “‘Big Void’ Identified in Khufu’s Great Pyramid at Giza.”
14. Amos, “‘Big Void’ Identified in Khufu’s Great Pyramid at Giza.”
15. Magli, “Possible Explanation of the Void.”
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CHAPTER 2. EXAMINING THE LEGENDS

1. Nunn, “Oldest True Stories in the World.”
2. Morris Guirguis, “Vision of Theophilus,” 6, 30.
3. Morris Guirguis, “Vision of Theophilus,” 16.
4. Fodor, *Origins of the Arabic Legends*, 350.
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8. Lehner, *Complete Pyramids*, 40–41.
9. Fodor, *Origins of the Arabic Legends*, 357.
10. Fodor, *Origins of the Arabic Legends*, 350, 362–63.

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1. Hedley, ed., *The Apocryphal Old Testament*, 1 Enoch, 247.

2. Isaiah, 24:1, 20, KJV.

3. Amos, 8:8–9, KJV.

4. Werner, *Myths and Legends of China*, 56.

5. Wilkins, *Mysteries of Ancient South America*, 31.

6. Plato, *Timaeus.*

7. White, *Pole Shift*, 277.

8. Velikovsky, *Worlds in Collision*, 105–13, 120.

9. Warlow, “Return to the Tippe-Top,” 10.

10. Carlotto, “New Model to Explain the Alignment,” 230.

11. Thomas, *Adam and Eve Story*, 14.

12. Barbiero, “On the Possibility of Instantaneous Shifts.”

13. Wölfli, Baltensperger, and Nufer, “Additional Planet as a Model.”

14. Hapgood, *Path of the Pole*, xvii, author’s note.

15. Gaffney, *Deep History*, 52.

16. Carlotto, “New Model to Explain the Alignment,” 209.

17. Alison, “Geographic and Geometric Relationships.”

18. Bowles, “Alaskan Era Question.”

19. Bard, *Introduction to the Archaeology of Ancient Egypt*, 87, 93.

20. Dodwell, “Obliquity of the Ecliptic.”

21. Barr, “Why the World Was Created in 4004 BC.”

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23. Vyse, *Operations Carried On at the Pyramids*, vol. II, 326.

24. Krupp, “Astronomical Integrity at Giza.”

25. Pogo, *The Astronomical Ceiling-Decoration in the Tomb of Senmut (XVIIIth Dynasty)*, 306, 316.

26. Matrejek, *Apocalypse of Enoch and Bhuśunda*, 106.

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1. Budge, *From Fetish to God in Ancient Egypt*, 198.

2. Sachau, *Chronology of Ancient Nations*, 28.

3. Gigal and El Morsy, “Discovery of Fossils on the Giza Plateau.”

4. Gray, “Great Pyramid of Giza.”

5. Jensen, “800' Inundation of the Giza Plateau,” 3.

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7. Alford, *Midnight Sun*, 13.

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CHAPTER 6. INTO THE VOID

1. Cookson, “Previously Unknown Void Found.”

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3. Vyse, *Operations Carried On at the Pyramids*, vol. II, 324.
4. Alford, *Midnight Sun*, 153.
5. Heath, *Archaeology Hotspot Egypt*, 46.
6. Heath, *Archaeology Hotspot Egypt*, 46.
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10. Pochan, *Mysteries of the Great Pyramids.*
11. Remler, *Egyptian Mythology: A to Z.*
12. Mertz, *Temples, Tombs, and Hieroglyphs.*
13. Reisner, *Bulletin of the Museum of Fine Arts*, 76, 78, 81.
14. Lehner, "Pyramid Tomb of Hetep-heres," 1.
15. Lehner, "Pyramid Tomb of Hetep-heres," 2–3.
16. Lehner, "Pyramid Tomb of Hetep-heres," 3.
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18. Lehner, "Pyramid Tomb of Hetep-heres," 42.
19. Callender, *Some Notes Concerning Reisner's Royal Family History*, 69.
20. Diodorus, *Library of History*, *Book 1*, 219.
21. Onvlee, "Mystery of the Pyramids: Part 1," 12.

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1. Vyse, *Operations Carried On at the Pyramids*, vol. II, 323.
2. Vyse, *Operations Carried On at the Pyramids*, vol. II, 326.
3. Lehner, "Pyramid Tomb of Hetep-heres."
4. Lehner, *Complete Pyramids*, 106.
5. Magli, "Akhet Khufu: Archaeo-astronomical Hints."
6. Bard, *Introduction to the Archaeology of Ancient Egypt*, 41.
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2. Ghonim, *Khufu Second Boat.*
3. El-Aref, "Egyptian Archaeologists Refute Claims."
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5. Vyse, *Operations Carried On at the Pyramids*, vol. I, 258.

6. Vyse, *Operations Carried On at the Pyramids*, vol. I, 226, 237–38.

7. Rosellini, *I Monumenti Dell' Egitto E Della Nubia'*, 130.

8. Wilkinson, *Materia Hieroglyphica*, 3. Item three has been deliberately left out as it is not relevant to the point being made.

9. Wilkinson, *Materia Hieroglyphica*, 4–5.

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1. Vyse, *Operations Carried On at the Pyramids*, vol. I, 259.

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3. Vyse, *Operations Carried On at the Pyramids*, vol. I, 206.

4. Vyse, *Operations Carried On at the Pyramids*, vol. I, 235

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8. Vyse, *Operations Carried On at the Pyramids*, vol. I, 259.

9. Sitchin, *Stairway to Heaven*, 263–64.

10. Vyse, *Operations Carried On at the Pyramids*, vol. I, 207.

11. Vyse, *Operations Carried On at the Pyramids*, vol. I, 278.

12. Vyse, *Operations Carried On at the Pyramids*, vol. I, 259.

13. Vyse, *Operations Carried On at the Pyramids*, vol. I, 238.

14. Pückler-Muskau, *Egypt under Mehemet Ali*, 245.

15. Pückler-Muskau, *Travels and Adventures in Egypt*, 18.

16. Pückler-Muskau, *Egypt under Mehemet Ali*, 237.

17. Pückler-Muskau, *Travels and Adventures in Egypt*, 18.

18. Roth, *Egyptian Phyles in the Old Kingdom*, 128–30.

19. Goedicke, *Old Hieratic Palaeography*, xiii.

20. Chrisomalis, *Numerical Notation*, 46.

21. Gardiner, *Egyptian Grammar*, 191.

22. Vyse, *Operations Carried On at the Pyramids*, vol. I, 264.

23. Omar, "Anglo-Egyptian Relations."

24. *Literary Gazette*, *"Egyptian Society,"* 796.

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SCOTT CREIGHTON is an engineer whose extensive travels allow him to explore ancient sacred sites. He has appeared on many shows, including *Ancient Aliens* and *Coast to Coast AM*. The host of the alternative Egyptology forum on AboveTopSecret.com, he is the author of several books, including *The Great Pyramid Hoax*. He lives in Glasgow, Scotland.

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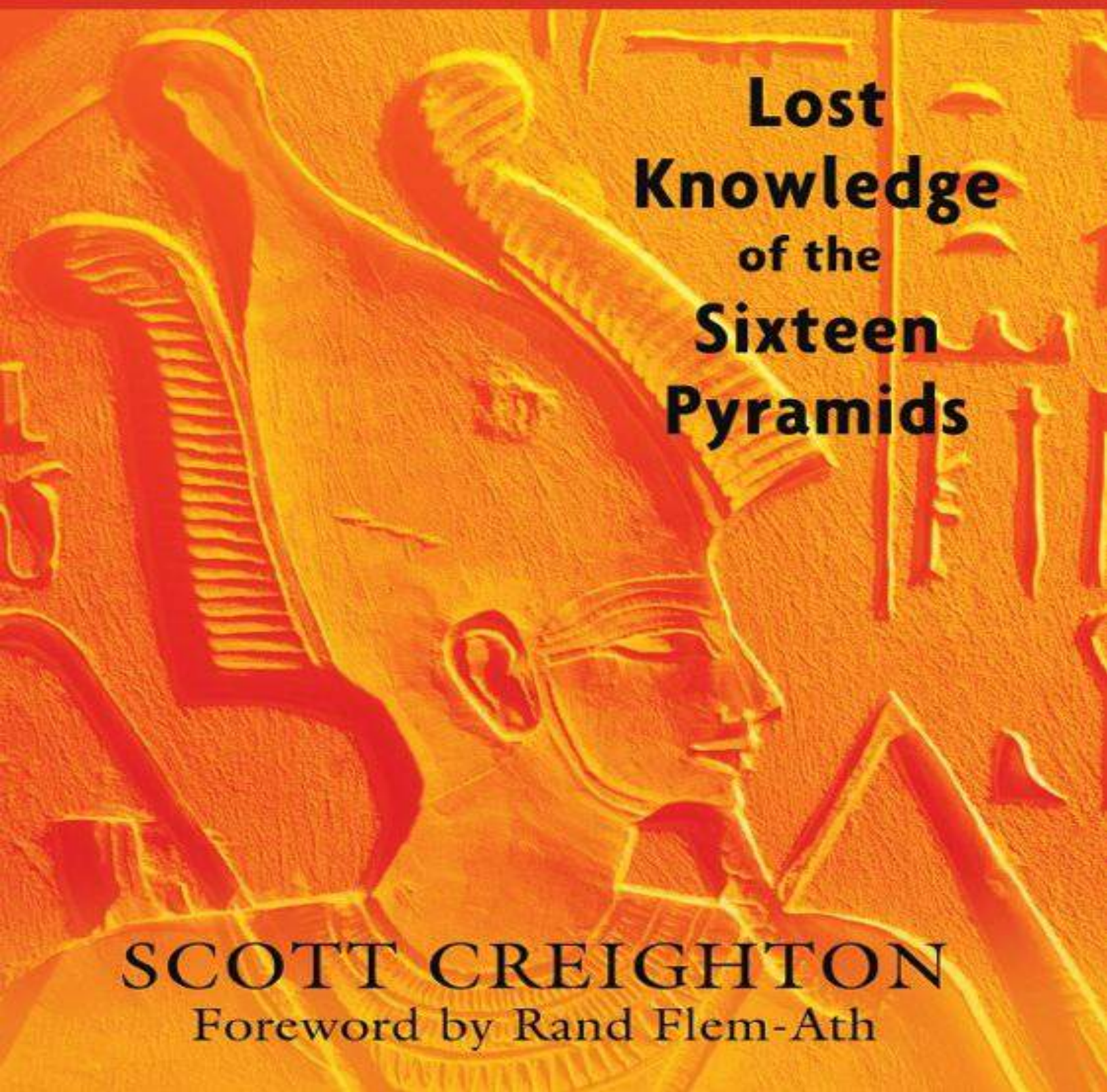


Lost Knowledge of the Sixteen Pyramids

SCOTT CREIGHTON

Foreword by Rand Flem-Ath

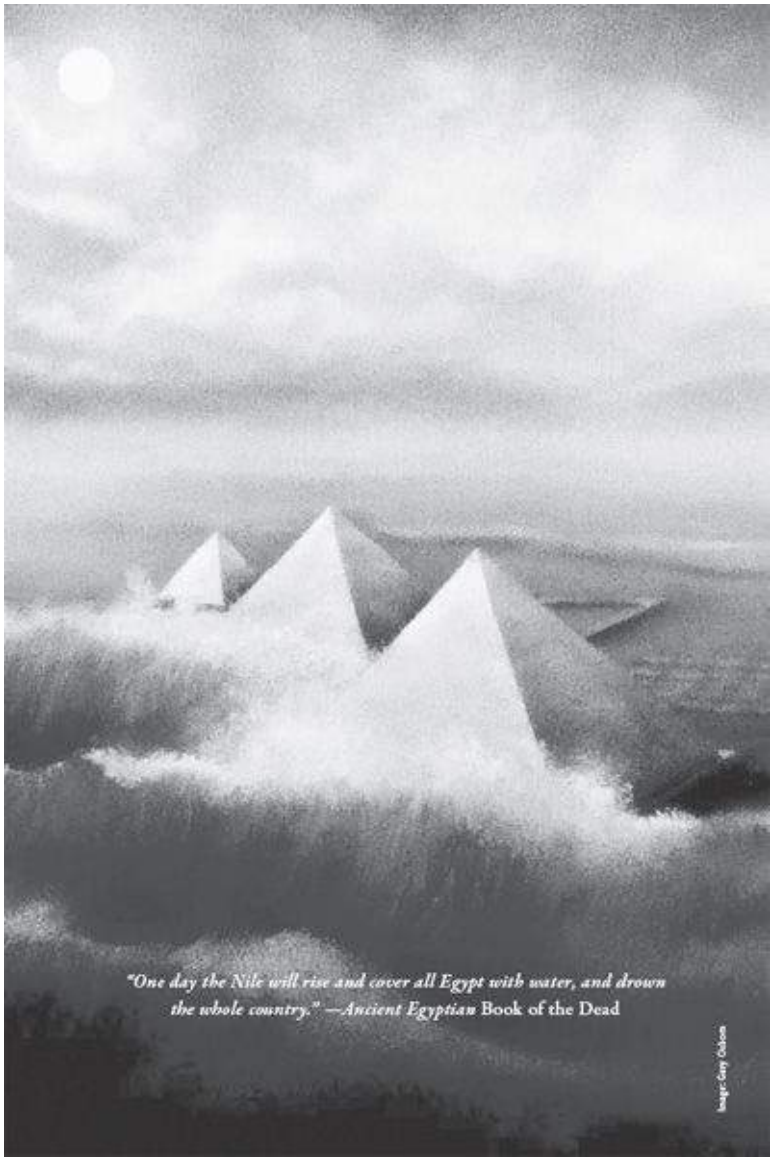
The Secret Chamber *of* Osiris

Lost Knowledge of the Sixteen Pyramids

SCOTT CREIGHTON

Bear & Company
Rochester, Vermont • Toronto, Canada

To my wife, Louise, whose generous, patient, and warmhearted nature allowed me the time and space to write this book; and to my children, Jamie and Nina, for even more of your marvelous questions—for questions truly are more important than answers. Love you all forever.


"One day the Nile will rise and cover all Egypt with water, and drown the whole country." —Ancient Egyptian Book of the Dead
Image: Gary Dobson

The Secret Chamber *of* Osiris

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Foreword

Does the sophisticated positioning of the Giza pyramid complex point to a reservoir of knowledge hidden beneath the sand? This is the compelling question raised by Scott Creighton in *The Secret Chamber of Osiris.* Boldly tackling a puzzling series of inconsistencies in the record, he questions why the architects of these iconic monuments not only took on the great challenge of aligning them with north, south, east, and west but also considerably increased the difficulty of their task by including features that only appear to be functional during a solstice or equinox. In answering the questions he reveals something extraordinary subtly concealed within the very design of the complex.

Egyptologists tell us that the Giza pyramids were constructed to serve the pharaohs' vainglory. Scott finds this hypothesis preposterous, writing, "There are simply too many anomalies, too many affronts to common sense, too many facts that simply do not fit the tomb paradigm that is so embraced by the Egyptologists." He exposes very real scientific problems and guides us along a fascinating path as he researches novel solutions and offers a radical and fresh explanation for one of the world's oldest mysteries.

He suggests that the people of ancient Egypt were privy to a deep and largely forgotten secret: that the Earth experiences periodic catastrophes that destroy civilization. To arm themselves against such future events, they constructed pyramids—not as tombs, but rather as reservoirs that would preserve the building blocks of civilization. These caches contained not only precious information on how best to reboot civilization but also held a sufficient store of grains to sustain the survivors as they launched their daunting task.

In *The Atlantis Blueprint,* coauthor Colin Wilson and I propose that the underlying geometry of the Giza site can be used to pinpoint the location of Thoth's Holy Chamber (containing records from a lost civilization). Scott takes the same broad approach but concludes that a different geometric solution provides the answer. He offers good reasons to believe that Egyptian authorities are fencing off the exact location that he believes should be the focus of an excavation. These efforts include "CCTV, infrared sensors, motion detectors" as well as "metal detectors"—useful tools to keep any but the most official

investigators well away from the site.

That an amateur archaeologist might be the inspiration for present-day excavations in Egypt is not as unexpected as we might think. Albert Einstein said, “You cannot solve a problem from the same consciousness that created it. You must learn to see the world anew.”[1] Seeing ancient Egypt anew is precisely what Scott Creighton has done in *The Secret Chamber of Osiris.*

This engrossing book reminds us that geology, archaeology, and Egyptology were once the subjects of great minds. In the nineteenth century these disciplines were at the cutting edge of science. But in recent times our best minds have been drawn to engineering, physics, the digital sciences, and the biological revolution in all its myriad and nascent branches. The stagnation in the official branches of geology, archaeology, and Egyptology has given rise to a generation of independent researchers motivated above all by curiosity, the real driving force of science. They are not willing to accept a prevailing paradigm just because academia decrees it so.

The problems that Scott confronts are worthy of serious consideration from our new generation of informed investigators, whose tools include an understanding of astronomy, survey and construction techniques, geometry, world mythology, and plain old common sense—all skills frequently lacking among present-day Egyptologists.

Critical questions raised by Scott include: Why are there so few inscriptions found within the Giza pyramids? What was the purpose of incorporating massive granite blocks within the Great Pyramid? Why did the builders leave in place a pulley system that allowed entry to the so-called King’s Chamber? Why not seal the entry for eternity? Scott writes, “One has to conclude that the ancient architects went out of their way to ensure that the Great Pyramid (and its internal chambers), although reasonably secure, was in no way as tightly secure as the builders *could* have made it: it is almost as though the builders were going out of their way to *invite* relatively easy access to whatever lay within” (italics added). If this statement doesn’t pique your curiosity, nothing will!

Scott also takes us deep inside the mysterious motives of Colonel Richard William Howard Vyse, whose dubious discoveries set the compass for much of which is still taken as gospel by Egyptologists. Not only does Scott reveal new facts about the case, he also suggests a relatively simple empirical test that could once and for all determine Howard Vyse’s veracity. Chapter 6, “Gunpowder and Plot,” is a welcome addition to the cause of keeping the field honest.

Having spent decades trying to unravel the mysteries of the termination of the last ice age, I find that “Ages of Deluge and Drought” is a chapter that tackles subjects close to my heart. Although our conclusions differ somewhat, Scott has done a thorough job in articulating the problem. The point where we concur is important: the ancient Egyptians believed in cyclical time, which suggested to them that deluges that occurred in the past would inevitably be echoed in the future. And we both maintain that traditional geological explanations are incapable of resolving the mystery of the relatively rapid changes in ocean levels exhibited at the termination of the Pleistocene, not to mention the phenomena of massive extinctions and migrations of people across the globe. We both explain worldwide myths that depict a great flood, falling skies, and stars that appeared to change position as the fearful legacy of ancient people who suffered a terrible catastrophe.

For those curious about the ever-intriguing mystery of how the ancient Egyptian builders manipulated the massive stones used in the construction of the pyramids, the author presents a novel and fascinating solution—one that has hitherto been missed.

Scott’s power of imagination is matched only by the discipline of his logic. He is not afraid of the difficult questions nor is he shy in admitting the lure of the mysterious. “The most beautiful thing we can experience is the mysterious. It is the source of all true art and all science,” said Einstein. “He to whom this emotion is a stranger, who can no longer pause to wonder and stand rapt in awe, is as good as dead: his eyes are closed.”[2] Scott’s eyes are most definitely wide open!

RAND FLEM-ATH

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Introduction

For the best part of two hundred years it has been the settled opinion among Egyptologists and other scholars that the great pyramid-building age of ancient Egypt served one purpose and one purpose alone: to construct for the god-kings of the ancient Egyptian people a monumental pyramid that would serve both as tomb and as the vehicle by which the king's soul could be transfigured and sent onward to take its place in the afterlife among the stars (the gods) of the heavens.

While this view of these first pyramids presently remains the prevailing opinion among many as being the original and true function of these structures, there is a growing body of compelling evidence that suggests this view to be quite erroneous and says that these great structures, rather than serving as "revivication instruments" for the kings, actually were intended and served as revivication instruments for the *kingdom.* In short, each of the first sixteen or so pyramids built in ancient Egypt was built as an *ark,* and collectively these early, giant pyramids represent the ark of the ancient Egyptian gods Osiris and Thoth —the *ark of the gods.*

To support its controversial conclusions, this book presents a broad array of evidence from many diverse sources and, with meticulous attention to detail, demonstrates precisely where conventional Egyptology has gone awry in its interpretation of this evidence and in its understanding of these magnificent, awe-inspiring monuments. *The Secret Chamber of Osiris* will show that there is a perfectly reasonable and viable alternative function for these monuments and, furthermore, that this alternative function resides within an equally valid ancient Egyptian cultural narrative.

The Secret Chamber of Osiris will show—with compelling evidence—how the first sixteen pyramids built in ancient Egypt were perceived as and would come to represent the allegorical "dismembered body of Osiris," the ancient Egyptian god of agriculture and rebirth, and that through the agency of Osiris it was hoped that the *kingdom* could be reborn after an anticipated cataclysm—the great deluge of Thoth.

Explaining the legendary *myth of Osiris* and how it speaks of a lost or hidden part of Osiris—a secret or hidden chamber—that may lie under the sands to the

southwest of the Giza plateau, the book will take the reader on a vicarious journey of discovery to explore this possibility and, in so doing, will reveal some provocative new perspectives and answers to some of the enduring mysteries of ancient Egypt, mysteries that persist even to this day and that the prevailing mainstream paradigm fails to adequately answer.

As well as presenting many new and original ideas, *The Secret Chamber of Osiris* also revisits some old questions with fresh new evidence that is sure to reopen and reignite these old controversies. In particular the long-standing controversial claim of forgery having occurred within the Great Pyramid, first penned by international bestselling author Zecharia Sitchin, is revisited with new evidence that paints the character of Colonel Richard William Howard Vyse, the man who allegedly discovered ancient Egyptian hieroglyphic inscriptions within sealed chambers of the Great Pyramid in 1837, in a very different and questionable light.

While the primary focus of *The Secret Chamber of Osiris* concerns itself with the *why* question, that is, *why* the giant pyramids of ancient Egypt were built, some time is taken within the book to also consider the *how* question, presenting an intriguing and somewhat radical new theory—supported by tangible evidence—as to *how* these structures might actually have been built.

The Secret Chamber of Osiris concludes with a truly startling revelation related to the quest to discover the legendary secret chamber of Osiris, showing how the theorized location of this hidden chamber—a location at Giza that had never before been explored—suddenly became the site of a major excavation by the Egyptian authorities shortly after I revealed the possible location of this secret chamber to the world.

This book is about collating the available evidence, discovering new evidence, and evaluating *all* the evidence in order to present a solid, well-grounded, no-nonsense alternative view to the mainstream opinion as to why our ancient ancestors expended so much blood, sweat, and tears into the construction of these giant monuments. In short, this book offers a new contextual paradigm—a *new Egyptology*—through which this remarkable civilization can be understood.

This is *The Secret Chamber of Osiris.*

2

In the Footsteps of the Ancients

> *Know ye that in the pyramid I builded are the KEYS that shall show ye the WAY into life; aye, draw ye a line from the great image, I builded, to the apex of the pyramid, built as a gateway. Draw ye another opposite in the same angle and direction, dig ye and find that which I have hidden. There shall ye find the underground entrance, to the secrets hidden before ye were men.*
>
> DOREAL, *THE EMERALD TABLETS OF THOTH-THE-ATLANTEAN*

As noon approached it was much hotter, approaching 35°C. My taxi driver had finally dropped me off on the sand-blown asphalt road near to the now disused and somewhat dilapidated amphitheater just to the west of G2, the pyramid attributed to Khafre. And, I have to say, it was with some considerable anxiety and trepidation that I watched him turn and drive away, vanishing into the horizon in a haze of shimmering heat, leaving me alone in an area of the plateau that very few ever visited these days. I could have been dropped off farther along the desert road, nearer to my destination, but I wanted the opportunity to capture the giant pyramids from a perspective that few ever enjoyed. Without doubt, it was going to be a long, arduous, and extremely uncomfortable trek back. I just hoped at that point that it would all be worth the effort.

Having rubbed some more sunblock onto my arms and neck, I took a few tentative paces in the direction of the derelict amphitheater. Throughout the 1990s this open-air theater that seated around four thousand people had been the centerpiece of a grand light and sound show that featured Verdi's *Aida*, an opera based on a tale first penned in 1869 by pioneering French Egyptologist Auguste Mariette. The opera portrayed the tragic story of a love triangle between an Ethiopian princess/slave girl (Aida), an Egyptian military commander, and the pharaoh's daughter. With the giant pyramids of Giza bringing such an appropriate and imposing backdrop, there could be no greater or more fitting setting on Earth for such a production.

But now, standing here under a scorching sun on a dusty and deserted road with only the giant, brooding pyramids for company, the distant echoes of such pomp and splendor seemed light-years away, and the once vibrant amphitheater that played host to those annual operatic triumphs had now decayed into silent ruin, the encroaching desert sands slowly but ever so steadily burying what little remained, just as in Verdi's opera, in which the slave girl Aida, having been lowered into a stone vault with her lover, was buried alive, her life finally extinguished by rising, suffocating sands—a most befitting allegory to the scene that lay before me now.

But time was of the essence. There was a lot to be done, and wandering around the derelict amphitheater was serving only as a distraction. As I turned back toward the road a car appeared out of the haze, flashing by in a blur, followed soon after by a busload of waving, cheering tourists, obviously heading to the viewpoint about a half mile farther down the winding, desert road. They must have wondered what on Earth someone was doing wandering around such a remote part of the plateau in such incredible heat, heading southwest, away from the pyramids, toward the edge of the desert.

I took out a map, found a flat rock, and spread it open, then pored over it for a minute or so, checking my route. I had already marked the location of the amphitheater, my starting point, with a red marker. From here I would have to walk about two miles along the desert road to my next reference point far to the southwest of the pyramid field, and from there just over 1,600 feet due west. Unfortunately my budget could not stretch to the luxury of employing GPS to find this remote and obscure desert location, so I would simply have to find it the good old-fashioned way, using map, compass, pedometer, and fishing line. In my bag I had a reel of fishing line premeasured at 1,606 feet in length—the precise distance I needed to travel due west to my "X" location, my destination and journey's end. The pedometer had been precalibrated to my walking pace, which was fine on a straight and level road, but farther on, in the undulating and rough terrain at the edge of the desert, it would not be nearly so accurate, hence the precisely measured length of fishing line.

Having quenched my thirst, I set off once more, following the desert road in a southwesterly direction, edging gradually deeper into the desert. Skirting past the gap between the pyramids of Khafre (G2) and Menkaure (G3), I could see, far in the distance, a slow-moving camel train followed in quick succession by three or four riders on horseback, galloping at pace across the billowing desert sands. Even though they were far in the distance, it was good to see them; it didn't

seem so lonely out here. Occasionally a helicopter would swoop overhead, seemingly from out of nowhere, circling the pyramids before heading back to the helipad to the northwest of Khafre's Pyramid.

What was not so welcome were the occasional Antiquities Guards, patrolling the area on camel and armed to the teeth with semiautomatic firearms. I had seen a couple of them patrolling the area south of Menkaure's Pyramid just before being dropped off from my taxi. They weren't guys to take lightly, and I hoped that I wouldn't come across any on my journey. I could just imagine the scenario:

"What are you doing out here? Where are you going?"

I would smile politely and say, "Oh, I'm just on my way to search for the legendary chamber of Osiris." Or something to that effect.

Either way, I didn't imagine such a scenario would end well. The guard would most likely think that I was a few sandwiches short of a full hamper and should be turned around for my own safety or, alternatively, would begin asking for all manner of official documents such as search permits from the Supreme Council of Antiquities, university affiliation papers, and the like—of which I had absolutely none. And without such official documentation, no one is permitted to search for anything in Egypt, and consequently I would most likely be unceremoniously marched out of the area and probably slapped with a permanent ban. So, for sure, it was important that I should stay alert and try as best as I possibly could to minimize the possibility of any such encounters with officialdom.

As I continued along the desert road toward my destination, I turned back every so often to take a well-deserved view of the great triangular structures that were slowly but ever so surely shrinking away in the distance behind me. It was at that moment that I saw just how the ancient architects of these remarkable monuments had presented to us as big a clue as they possibly could in order to indicate to us the means of discovering the precise whereabouts of the legendary chamber of Osiris. There it was, in front of me, as clear as day and in plain sight—the simple *triangle.* Standing there on that quiet desert road, taking in that grand vista, it all seemed so mundanely obvious—and so very simple. The Three Brothers pointing the way.

But it hadn't always been so. My instinct told me that the concavities of G1 and G3 held the key (the keys of Thoth) to this puzzle, but still I was unable to find the lock. The concavities of G1 and G3 effectively divided the triangular

faces of these two pyramids into two smaller triangles, so it seemed to me that the solution lay somewhere in the use of the simple triangle. This shape is ubiquitous at Giza and, as explained in chapter 1, is *especially* highlighted to us in the Great Pyramid's concave sides during the equinoxes, when the larger triangle of the pyramid face is bisected by shades of light into two smaller triangles. Why demonstrate the triangle being bisected? Had this been done to somehow demonstrate some universal truth, to present a clue of some kind?

I knew that before modern satellite technology, triangulation was the means used by land surveyors to determine an unknown point from the angles of two known points. Could the ancient architects have perhaps built some form of triangulation into the Giza pyramids that could act in some way to allow the pyramids to "point" to a secret location? If so, then how might this have been done?

Long before embarking upon my Giza adventure I had spent many months on my home computer drawing all manner of lines from all manner of significant points on a survey drawing of Giza. It eventually became apparent to me that such an exercise was entirely futile. There were simply too many possibilities pointing to too many different potential locations. If the pyramids had been designed in some way to triangulate to a particular unknown point, then it stood to reason that the rationale employed by the designers would ensure that any such triangulation technique could result in only *one* possible unique location being identified. But how could the three pyramids be used collectively to indicate just *one* unique geographical location? Once again I was stumped.

But it often seems to be the case that just when you think your mind has hit a stone wall, that is exactly the tonic it needs, for in hitting that wall it completely cleared my mind of the cluttered debris of redundant ideas and dead ends that had been rattling around for months, allowing me to start again from scratch. However, one thought remained very firmly fixed in my mind: the words of Djeda—"found by three"; these words were never far from my thoughts. "Found by three." The three Giza pyramids seemed the *obvious* "three," but could there be something else, some other fairly obvious "three" that related to triangles that I was not seeing?

THE PENNY DROPS

Up until that moment I had never been a great believer in serendipity, but as I

grappled with this seemingly insoluble problem of finding a means by which all three Giza pyramids could collectively be used in a unique manner to somehow indicate a single geographical location, my young son asked me a completely innocuous and random question about triangles for a school math project on which he was working. He wanted to know how to find the center of a triangle. The question was simple enough, and at first there was no spark, no blinding light, no great epiphany. That would happen some minutes after his simple question had time enough to percolate through the filters of my mental reasoning.

I began by explaining to my son that, unlike a circle or a square, a triangle can actually have many *different* "centers." Today we know of 5,389 different ways to plot unique points (centers) within any particular triangle, but in the ancient world only the three simplest triangle centers were known.

Eureka!

My moment of epiphany had arrived.

There it was; in the ancient world only the *three* simplest triangle centers were known! Finally, the light was switched on.

THE TRIPLE CENTROID

The idea was simple enough. Each of the three main pyramids at Giza might represent one of the three triangle centers that were known in the ancient world —three triangle centers that today we know as *incenter, barycenter,* and *circumcenter* (figures 2.1, 2.2, and 2.3).

1. The Incenter

This point requires a circle to be inscribed within the triangle whereby the perimeter of the circle touches all three sides of the triangle. The center of the inscribed circle is then plotted, and this point becomes the triangle's incenter centroid.

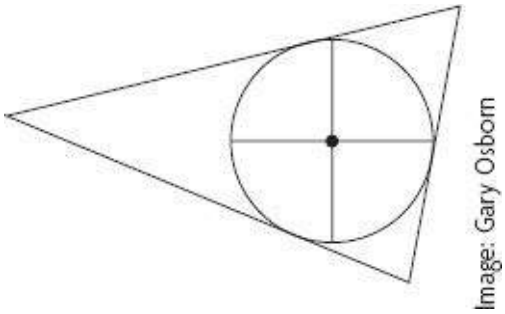

Figure 2.1. The incenter centroid

2. The Barycenter

This point requires a line to be drawn from each of the triangle's vertices to the midpoint of the opposite parallel. The intersection where the lines meet is plotted, and this point becomes the triangle's barycenter centroid.

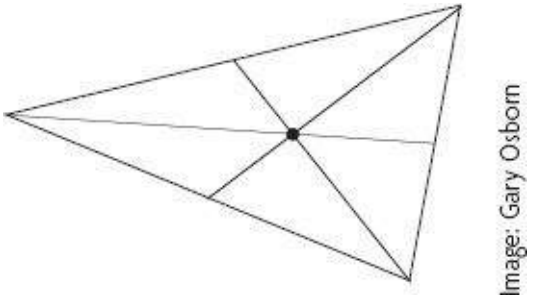

Figure 2.2. The barycenter centroid

3. The Circumcenter

This point requires a circle to be circumscribed around the triangle in such a way that its perimeter touches all three vertices of the triangle. The center of the circumscribed circle is then plotted, and this point becomes the triangle's circumcenter centroid.

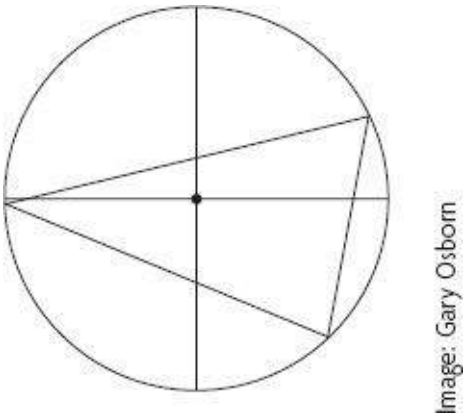

Figure 2.3. The circumcenter centroid

As stated earlier, each and every triangle can contain *all* of these different "centers" at the same time. But depending on the particular shape and orientation of the triangle, the different centers will fall at different relative positions within the triangle (sometimes even *outside* the triangle). In this regard we can consider the three centers of the three pyramids as each belonging to one of the three most ancient triangle centers, and together they could be used to reverse-engineer the unique triangle that contained these three centers; that is, we could use this understanding of the three triangle centers known in the ancient world and determine the unique triangle that matched the particular configuration of the three pyramid centers.

Reverse-engineering this unique triangle was not as easy a task as I had at first imagined, and it involved countless hours in front of a computer screen testing different-shaped triangles, trying to find a unique triangle whose three inherent centers (incenter, circumcenter, and barycenter) matched the relative disposition of the three pyramid centers. Finally, after many nights falling asleep at my computer desk, I eventually found a triangle (figure 2.4) whose three latent triangle centers (incenter, circumcenter, and barycenter) matched the relative disposition of the three centers of the Giza pyramids.

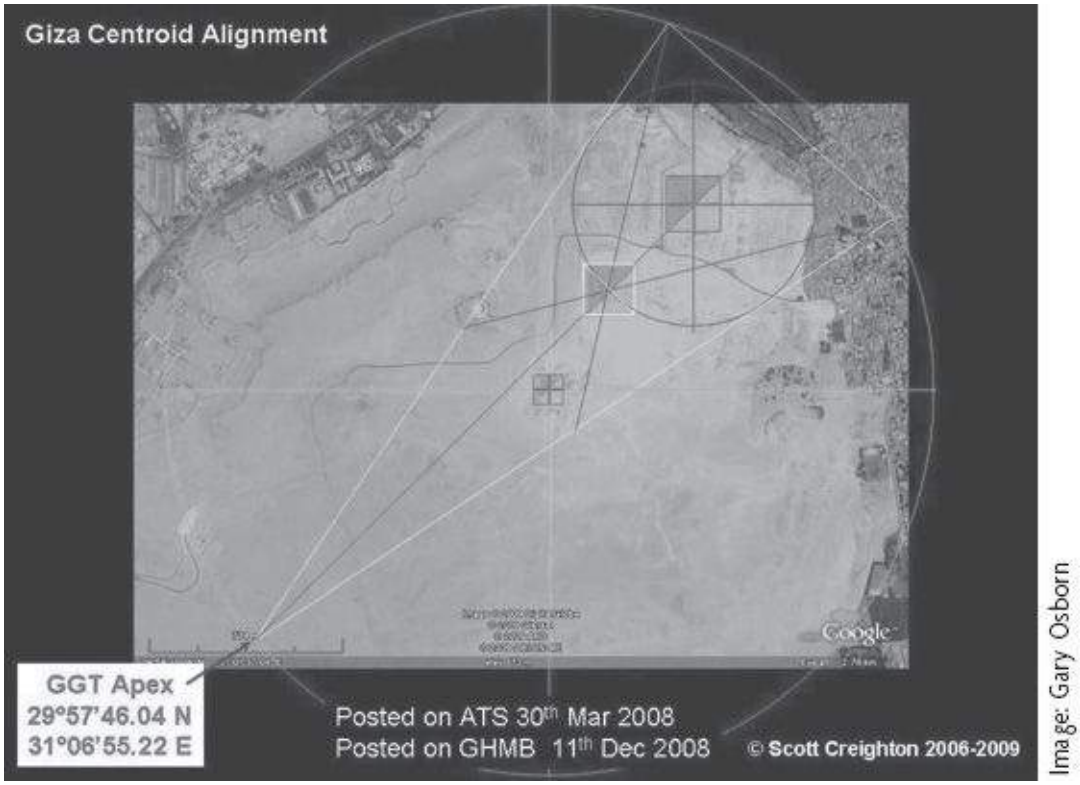

Figure 2.4. The Giza triple centroid triangle

What is also interesting about this triple-centroid construction is that the cardinally aligned "cross" of the incenter and circumcenter triangles naturally aligns with the lines of the concavities of G1 and G3 and seems to offer an explanation as to why G2 was entirely devoid of these concavities because, being the barycenter of the reverse-engineered Giza triangle, there would be no circle and therefore no cardinally aligned cross to indicate the circle's center. As such, it rather seemed to me, at that point, that the architect of these pyramids had perhaps placed the concavities into G1 and G3 so as to present a subtle hint (the cardinally aligned cross of the concavities alluding to the center of a circle) toward their latent triangle centers in order that these might be used later by someone to reconstruct or reverse-engineer this unique, grand triangle over a plan of the Giza pyramids. And if we consider the two lines that converge at the apex location, we find that both these lines are oriented generally northeast and southwest and have the same angle (figure 2.5)—just as the Emerald Tablets of Thoth indicate to us. These "tablets," which form part of the *Corpus Hermetica*, comprise ancient wisdom texts believed to have been written by the ancient Egyptian god, Thoth the Atlantean, before the Flood.

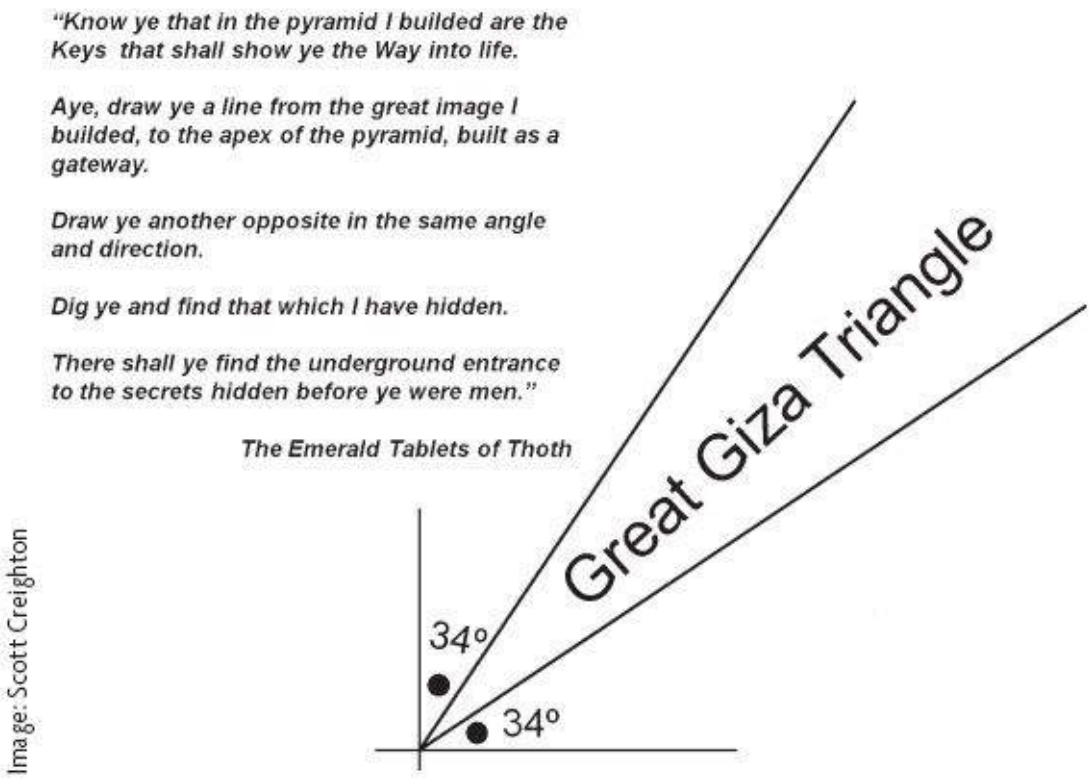
"Know ye that in the pyramid I builded are the Keys that shall show ye the Way into life.
Aye, draw ye a line from the great image I builded, to the apex of the pyramid, built as a gateway.
Draw ye another opposite in the same angle and direction.
Dig ye and find that which I have hidden.
There shall ye find the underground entrance to the secrets hidden before ye were men."
The Emerald Tablets of Thoth
Great Giza Triangle
34°
34°
Image: Scott Creighton

Figure 2.5. The Great Giza Triangle has two sides at the same angle: 34°.

So here we have two lines drawn toward the same direction of the Giza plateau and at the same angle—but to what end? What exactly would be the point of such a hidden, grand triangle? Well, not to place too fine a point on it, but the point is the triangle's *apex*—its endpoint! This unique triangle actually acts like an arrowhead or pointer that targets a very specific location to the southwest of the Giza plateau on the edge of the desert—the very place I was now headed.

As the Emerald Tablets foretold, "Dig ye and find that which I have hidden. There shall ye find the underground entrance to the secrets hidden before ye were men."[1]

Having identified the apex location of the grand triangle on a map of Giza—an apparently inconsequential area to the southwest of the Giza pyramid field—I knew at once that I simply had to get myself to that location. I knew not, of course, what I would find if and when I ever got there, but it seemed to me, based on the legends of the secret chamber, that it would be "found by three." And the unique nature of the Great Giza Triangle, which itself was "found by three" (i.e., the three pyramid centers corresponding to the three triangle centroids), would be as good a place as any to begin such a search.

But my trip to this remote location in the Egyptian desert would also become something of a pilgrimage, a journey to pay homage to the remarkable builders of these truly awe-inspiring structures. To that end I had taken with me a small pyramid made of Scottish granite—small enough to sit in the palm of my hand. At the apex location I would place my small granite "gift to Osiris" and, in homage, would speak a few words from the "Hymn to Osiris." This hymn contains the most complete account of the Osiris myth ever recorded by the ancient Egyptians, recounting his death at the hands of his treacherous brother Seth and his resurrection and vindication as the true ruler. In reciting these immortal words I felt as though I would be following in the steps of the ancient Egyptians who venerated this god of rebirth and regeneration; I would also be acknowledging and honoring the tremendous achievement of this ancient people who, by their blood, sweat, and tears, ensured their own (and our) future. And by placing my small pyramid offering at the precise spot the geometry of these great monuments "point" us to, it may also serve as a message to someone who, perhaps ten thousand years from now when our civilization has perhaps been decimated and lost, might understand the same geometry, seek out this very spot, and find this small pyramid that would tell them something of our own civilization.

THE MYTH OF OSIRIS

I'd been traveling along the desert road for about a half hour and had now almost reached the vista point. About six or seven buses were bunched together in a makeshift bus park while dozens of tourists milled around taking snapshots of the pyramids, which thrust out of the desert sands about a mile in the distance. As I turned the sharp bend into the bus park's entrance, from the corner of my eye I caught a glimpse of an Antiquities Guard near the boundary wall at the far side, mounted on a camel, having his photograph taken with some tourists and more than happy to relieve them of some *baksheesh* for his trouble. Or perhaps it was the somewhat unsettling sight of his Glock handgun that compelled the tourists to part with their cash.

This was awkward and precisely the kind of situation I had hoped to avoid. I didn't want to continue on my journey with the guard so near and so able to observe my movements. Not that I was doing or even about to do anything illegal, but it would have looked somewhat peculiar, a lone figure heading out

onto the desert road on foot, and would surely have piqued the guard's curiosity and no doubt his attention, which I could well have done without.

Thus, for the next half hour or so I had to stay put and content myself with some sandwiches and my bottle of water—killing time. It was also a convenient opportunity to join the frenzy of pyramid shooting. While this particular aspect of the pyramids—spread out north to south—was truly magnificent, it was not nearly as spectacular a view as the iconic, jaw-dropping, east-west panoramas to be seen from the vantage points to the south of the Giza pyramid field. From the location here the pyramids seemed somehow disjointed, like pieces of a gigantic geometric puzzle that had become scattered and disconnected and that needed to be picked up and reassembled (figure 2.6).

After having taken the third "pyramid-in-my-hand" photo for some grateful American tourists, I overheard the crackling of the guard's radio. He took the radio from his belt and spoke into it briefly before signaling with a brush of his hand, "No more photos." Before long, and with a considerable sense of relief, I watched as he exited from the bus park on his camel, heading out across the desert sand in a southeasterly direction—opposite to where I was headed. I didn't waste any more time. I quickly packed my things and, with one final check that the guard was fully out of sight, made my way once more onto the dusty road.

A few hundred yards later the road took a sharp turn, heading almost exactly due south. In the distance I could see the rise of a small hill, beyond which was my goal. The feeling of excitement and exhilaration was building within me with each passing step. As I looked to the pyramids in the distance behind me, something rather remarkable was occurring—as I reached the point where I was almost perfectly in line with the diagonal of the three pyramids, the wide gaps between them had completely vanished, giving the illusion that the three individual structures had morphed into one giant, unified body. In this I was reminded of Plutarch's tale of Osiris and Isis whereby Osiris (the ancient Egyptian god of rebirth and regeneration), having had his body cut into sixteen pieces (some versions of the tale say fourteen pieces) by his evil brother Seth, who then scattered them all across the land of Egypt, was made whole again after his wife (and sister) Isis found all the body parts (with the exception of one) and pieced them together again.

Figure 2.6. The Giza pyramids (looking east). Photo by Scott Creighton.

I began to wonder if there was in fact a kernel of truth in this ancient myth, whether it could be possible that this story was actually an allegorical tale pointing us toward a fundamental truth that the body of Osiris that had been cut into sixteen pieces and scattered across the land was not meant to be understood in terms of a human body but was perhaps a metaphorical reference to the early, giant pyramids acting as the body of Osiris, much in the same way that a Christian church today represents the allegorical "body of Christ." And further still, could it be that the one piece of the "body" we are told from the myth that Isis could *not* find may be an allegorical reference to a *hidden* part, a subtle clue to a hidden vault somewhere deep underground, awaiting discovery—the legendary hidden chamber of Osiris?

This may not be as radical a thought as it may at first seem. The idea that the scattered "body of pyramids" (i.e., the first sixteen or so pyramids built by the ancient Egyptians at Abu Roash, Saqqara, Meidum, Dahshur, and Giza) may represent (or may have come in later times to represent) the allegorical body of Osiris finds some support in our earliest religious texts, the ancient Egyptian Pyramid Texts, in which it is written, "This pyramid . . . is Osiris . . . this construction . . . is Osiris."[2]

This notion is given further support in Frank Cole Babbit's translation of Plutarch's *Isis and Osiris,* in which we read, "The traditional result of Osiris's dismemberment is that there are many so-called tombs of Osiris in Egypt; for Isis held a funeral for each part when she had found it . . . all of them called the

tomb of Osiris."[3]

While it may have been believed by some later historians such as Plutarch and Herodotus that these early pyramids (along with the hundred or so much later pyramids) had been conceived and built as tombs, there is considerable evidence —presented in the next chapter that raises some serious questions about that assertion. What is absolutely certain, and for which there can be absolutely no doubt, is that clearly *intrusive* burials have been recovered from a number of the earliest pyramids. And, by the same token, what is clear also is that not a single *intact* burial of an ancient Egyptian king has ever been recovered from any of these first pyramids (or indeed from *any* pyramid in any age). Indeed, the *only* fully intact burial of an ancient Egyptian king ever found was that of Tutankhamun, who was buried in a deep, underground tomb (not in a pyramid) in the Valley of the Kings.

The concept of pyramids as arks or recovery vaults for the kingdom (containing all manner of seeds, tools, pottery, etc.) could not be better symbolized than by the ancient Egyptian god Osiris, their god of agriculture and of rebirth. The pyramids contained, after all, the means by which the kingdom hoped to recover should the worst effects of "Thoth's Flood" come to pass. These "dismembered body parts" (i.e., the individual pyramids scattered along the length of the Nile) represented the agency through which the recovery or rebirth of the kingdom could occur.

In essence these first scattered pyramids along the Nile Valley *were* Osiris (i.e., his body cut into sixteen parts), just as the ancient Egyptian Pyramid Texts and Plutarch's *Myth of Osiris* inform us. As such it should be of little surprise then to find that when plotting the individual locations of the first, giant pyramids onto a map of Egypt, what we find is a crude "matchstick" outline drawing of the classic Osiris figurine (see figures 2.7a–e), complete with the royal regalia of the distinctive three-pronged Atef Crown of Osiris and symbols of power, the crook and flail.

These images demonstrate the locations of the pyramids listed below with the name of the king Egyptologists believe constructed each pyramid (its location in parentheses), and which were constructed on the high plateaus along the lush green Nile Valley (Osiris is often painted with a green body depicting vegetation and rebirth) and are believed by Egyptologists to have been completed in the following order of construction.

1. Djoser (Saqqara)

2. Sekhemkhet (Saqqara, unfinished)
3. Khaba (Zawiyet al-Aryan, unfinished)
4. Sneferu (Meidum, farthest south)
5. Sneferu (Dahshur, the Bent Pyramid)
6. Sneferu (Dahshur, the Red Pyramid)
7. Khufu (Giza, with four satellite pyramids)
8. Djedefre (Abu Roash, farthest north)
9. Khafre (Giza, with one satellite pyramid)
10. Nebka (Zawiyet al-Aryan, unfinished)
11. Menkaure (Giza, with three satellite pyramids)

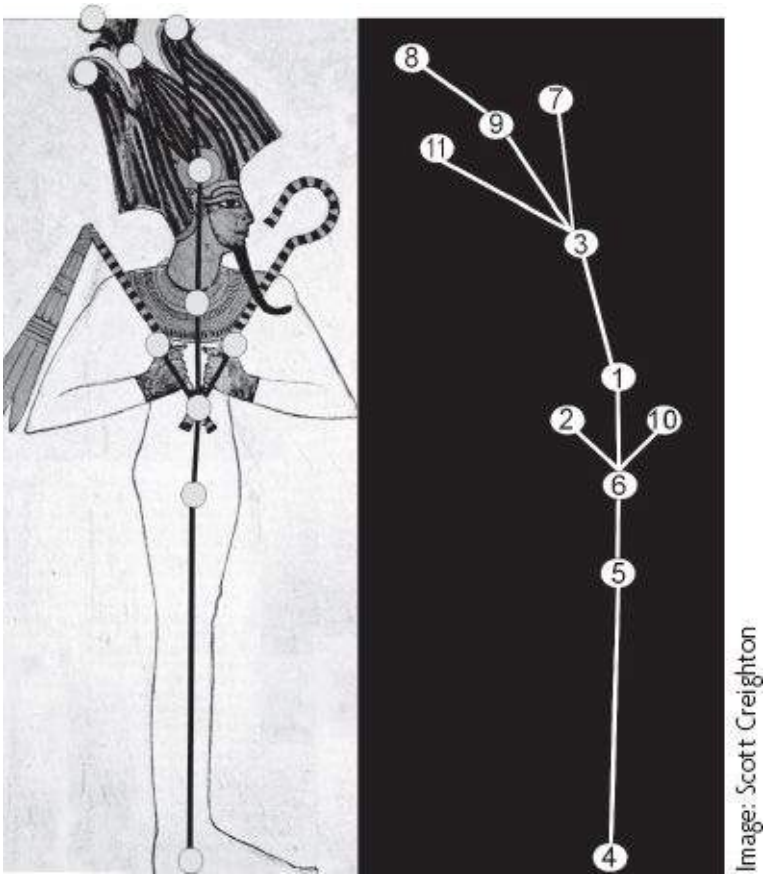

Figure 2.7a. The first pyramids outline the god Osiris.

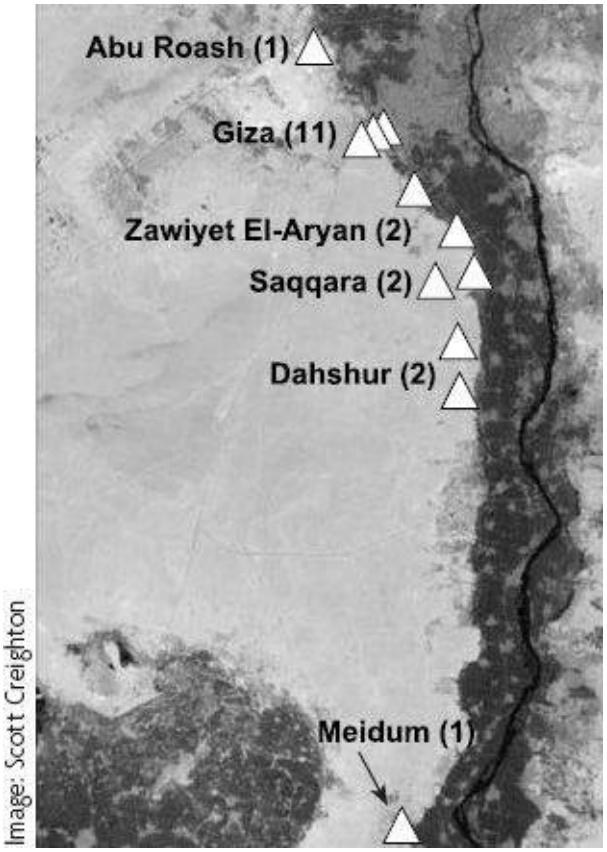

Figure 2.7b. Locations of the first 19 pyramids built by the ancient Egyptians along the Nile Valley (inludes 3 unfinished pyramids).

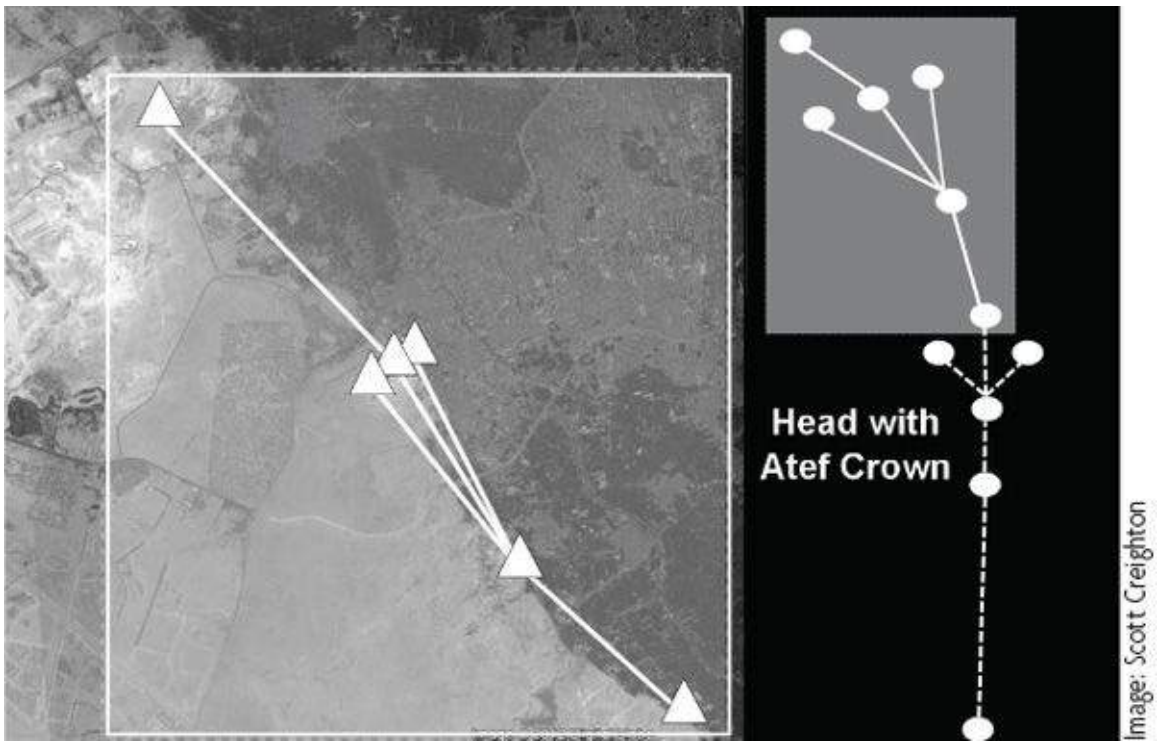

Figure 2.7c. The most northern pyramids correlate with the Atef Crown of Osiris.

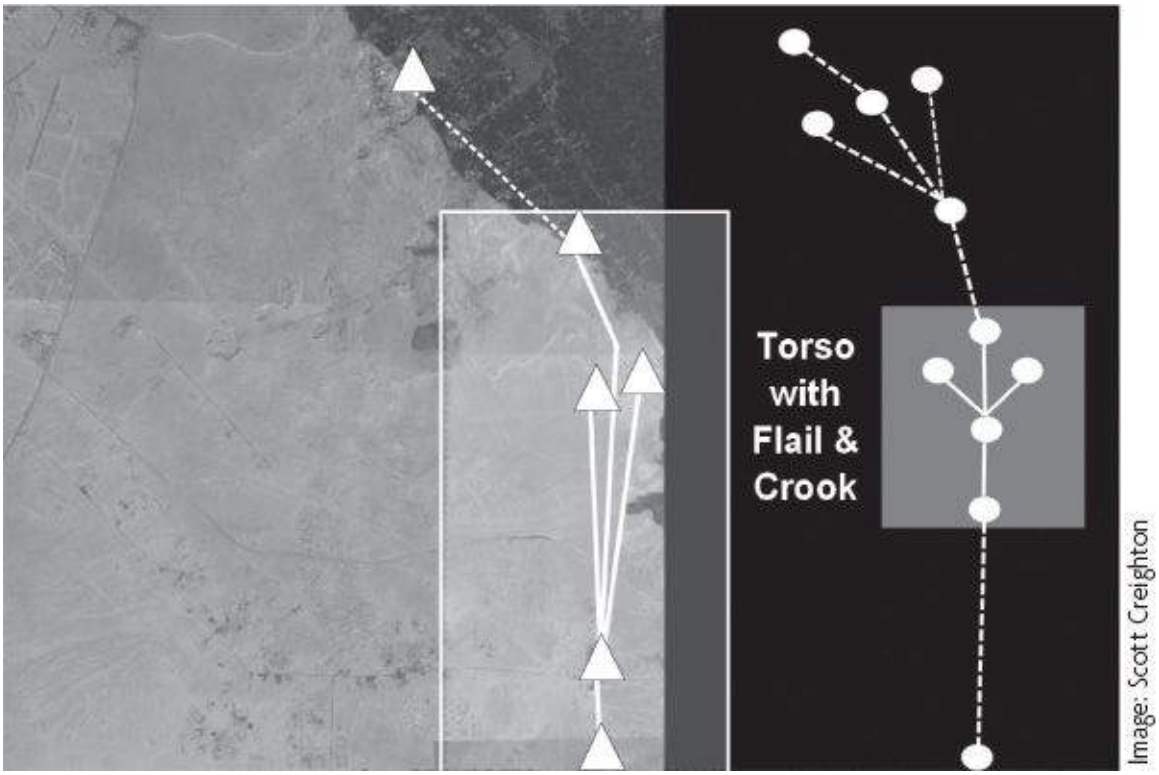

Figure 2.7d. The middle pyramids correlate with the torso and the flail and crook of Osiris.

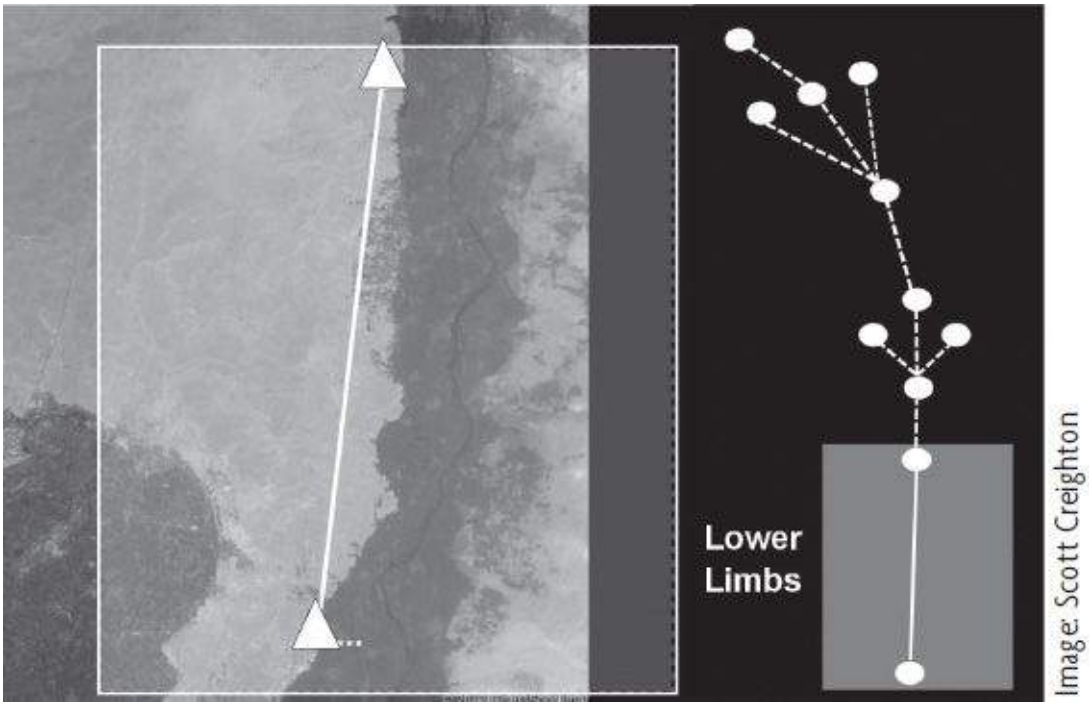

Figure 2.7e. The southern pyramids correlate with the lower limbs of Osiris.

Thus in Dynasties Three and Four we have a grand total of nineteen pyramids, three of which were never finished, giving a total of sixteen completed pyramids. Which brings us back to this possibility: Could the sixteen dismembered parts of the body of Osiris related to us in Plutarch's *Myth of Osiris* actually have been an allegorical reference to the first sixteen pyramids that were completed by the ancient Egyptians? And, as suggested earlier in this chapter, could there perhaps be a secret seventeenth part of this body of Osiris yet to be discovered, the part that Isis could not find?

With each pyramid within the body of Osiris serving as an ark (securing seed such as wheat and barley and other vital recovery items), it is unsurprising to find that in later dynasties during the Festival of Khoiak small effigies of Osiris known as corn mummies would be created and packed full with grain and buried in the ground under a mound of earth or a large rock—the body of Osiris packed full with grain just like the pyramid body of Osiris had once been. (This idea will be discussed in greater detail in chapter 9.)

As I gazed from the desert road along the diagonal of the pyramids, their appearance from this spot as a single giant body (of Osiris) made complete sense

to me, and it also made sense of the religious festivals that had arisen in later dynasties in the name of this ancient Egyptian god. Looking back toward these magnificent structures that had now seemingly morphed into a single, giant body, it almost seemed as though my hunch that these individual pyramids collectively represented the (dismembered) body of Osiris was being vindicated. It rather seemed to me that the conventional idea that these structures had been conceived and built as individual royal tombs by a succession of ancient Egyptian kings without any master plan having ever been involved was fundamentally wrong, an outdated premise that had served only to misdirect and misinform for almost two hundred years.

And now, as I turned my back on the pyramids to resume my hitherto trouble-free journey of discovery, it was then that fate decided it would step in with a sharp wake-up call, bringing about a turn of events that would see matters take a sudden and distinct turn for the worse.

3

A Wrong turn

Guessing at what shall happily be hid,
As the real purpose of a pyramid.

LORD GEORGE GORDON BYRON, *DON JUAN*, CANTO THE EIGHTH, 1823

What was the real purpose of the early, giant pyramids? What, if anything, did they contain? These two questions have been offered an answer by Egyptologists who, for the best part of two hundred years, have regarded these structures as the tombs of ancient Egyptian kings and queens and as the instruments of rebirth that would facilitate the transfiguration of the king's soul into an *akh* (an effective being of light), whereupon it could pass unharmed through the Duat (the underworld) and hopefully onward into an undisturbed, everlasting afterlife among the gods of the "Imperishable Ones"; that is, the stars of the northern skies.

The idea that these structures were conceived and built as tombs is all-pervasive to our modern mind-set, so much so that many have come to accept the pyramid tomb theory as being not so much a theory but an actual fact. This is, after all, what many of us were taught in school. So why then should it be deemed necessary to even think about questioning what many regard as fact?

The first thing to say is that the evidence to support the pyramid tomb theory is actually only circumstantial; this theory is entirely devoid of any direct primary evidence. Neither are there any ancient Egyptian texts that categorically state why the ancient Egyptians conceived and built their pyramids. Indeed, there are some ancient texts that actually state that the pyramids were *not* used as tombs. For example, in the book *Sphinx: History of a Monument*, Christiane Zivie-Coche writes, "Describing the Great Pyramids and the hatred their builders supposedly attracted to themselves, Diodorus follows the tradition of Herodotus; he adds, however, that the pharaohs were never buried in them, but rather that the rulers commanded that their bodies be placed in a secure place that was kept secret."[1]

However, even in the absence of any direct evidence, Egyptologists have

managed to build up a considerable case for the pyramid tomb theory based solely on the circumstantial evidence they have uncovered (much of that evidence from later times and back-projected onto the much earlier culture). But just how strong is their case? What, if anything, is there that might cast doubt on the Egyptologists' interpretation of the evidence that brought them to conclude that all pyramids in ancient Egypt were conceived and built as tombs? For it stands to reason that if the early, giant pyramids were *not* conceived and built as tombs but were designed to serve some other purpose, the implication then is that the evidence that consensus Egyptology holds up as proof of the tomb theory must, therefore, be wrong.

This is to say that somewhere along the nearly two hundred years of consensus Egyptology, some evidence has been completely overlooked while, at the same time, of the evidence that Egyptology *has* considered, a series of wrong interpretations have been made, resulting in flawed opinions and an incorrect paradigm emerging. But if the early, giant pyramids were *not* conceived as tombs (as some early texts indicate), then the implication is that they served some other purpose, and that, as such, behooves us to make a closer analysis of the key evidence that is presented in support of the tomb theory.

In this chapter a number of facts will be presented that, while not conclusively disproving the pyramid tomb theory, nevertheless raise some pertinent questions that ultimately place the theory in a more questionable light. At the very least, these ten facts will show that, of the evidence Egyptology has actually considered, the interpretation it has arrived at is, at best, highly contentious and there may exist a more plausible and better interpretation of this key evidence. These facts are presented in no particular order and arise from a number of sources that include the physical, logistical, practical, functional, and mythical.

In consideration of these ten facts it is assumed that each will be internally consistent with the culture and beliefs of the ancient Egyptians, will agree with the extant evidence that is currently available to us, and will not present an affront to simple logic and good common sense—the ultimate test of any theory. It should be noted, however, that the ten facts presented here are by no means exhaustive and that there are many other facts and/or issues that also cast doubt on or otherwise contradict the pyramid tomb theory that are not presented in this chapter. So, let us begin.

1. PYRAMID SIZE

The very first pyramids built by the ancient Egyptians were among the largest pyramids that they ever built over their more than three-thousand-year history. Indeed, the Great Pyramid of Khufu, believed to have been built circa 2550 BCE, was the tallest man-made structure in the world until the construction of the Eiffel Tower in 1889. The question that arises here is why did the ancient Egyptians suddenly depart from the construction of relatively low *mastaba* tombs made of crude mud-brick to the construction of truly monumental pyramid structures of dressed stone?

Egyptologists point to what they perceive as an evolution from mastaba to step pyramid to true pyramid but fail to adequately explain *why* such a radical transition was deemed necessary, why giant pyramids were suddenly needed when the simple "pit-and-mound" mastabas, shaft tombs, and rock-cut tombs were sufficient and had been the burial traditions of the ancient Egyptians for hundreds, if not thousands, of years? Why suddenly did the king apparently require a "ladder" (i.e., a large stepped pyramid) on which he could ascend to the gods? Why did the king suddenly desire to ascend to the heavens on a smooth-sided true pyramid that, if we are to accept the opinion of Egyptology, supposedly mimicked the rays of the sun, when such a device was obviously completely unnecessary prior to the arrival of the pyramid? This sudden need for a really tall structure (i.e., the pyramid) to assist the king's soul up into the heavens is all the more baffling given that the king's *ba* (a part of the king's soul) could actually *fly* up to the heavens of its own accord because it had wings.

Some commentators have argued that the pyramid was built so massive in order to reflect the greatness of the king, to satisfy the king's ego. This is somewhat improbable given that not a single official inscription bearing a king's name has ever been found inside any of the early, giant pyramids—not one. Neither have any statues of any king been found inside these pyramids. Indeed, the only statue ever found of Khufu—the builder of the Great Pyramid—stands a mere three inches tall and was uncovered at the ancient royal burial site at Abydos, far from his pyramid at Giza. Had these pyramids been built to satisfy the vanity of kings, as some propose, then it is not unreasonable to expect that such vanity would surely have found the names of these kings inscribed all over

them—inside and outside—along with a preponderance of massive statues in the king's image. Such is the nature of vanity.

Furthermore, were these massive constructions simply reflections of massive egos, there is little doubt that Khufu, having had first bite of the Giza plateau cherry, would undoubtedly have built his pyramid on the high, imposing, and prestigious ground at the center of the plateau and not at a relatively low corner on the edge of the plateau. By so doing Khufu would have securely closed the door on the possibility of any future king trumping his own architectural marvel. In addition, by selecting the central, high ground of the plateau Khufu would also have benefited from the natural causeway that ran from the Nile up to the central high ground and would have saved himself the not inconsiderable headache and expense of having to build a massive artificial causeway deep into the Nile Valley. But concerns of prestige, of finance, and of potentially being upstaged seem not to have influenced Khufu's choice in the slightest, as clearly can be seen by his decision to reject the prestigious, central high ground with its advantageous natural causeway and, instead, to opt for the lower, northeast corner of the plateau, right on the cliff face, for the construction of his Great Pyramid.

And were these colossal structures built to reflect the greatness of the king (i.e., to satisfy his ego), then there is little doubt also that Menkaure, the builder of the smallest of the three main pyramids at Giza, would more likely have chosen a virgin site for his pyramid rather than have its relatively diminutive stature highlighted by its two illustrious predecessors standing high and mighty on the Giza plateau. By building away from Giza at a virgin site, Menkaure could easily have avoided such unflattering comparisons being made. But no, Menkaure was quite content to build at Giza, in the shadow of the two giant pyramids already there. So, as far as ego is concerned, the very placement of these monuments squarely contradicts such a motivation.

Other commentators have suggested that the pyramid evolved from the mastaba in order to provide greater security from robbers in a similar way that the mud-brick mastaba developed from simple pit-andmound graves that would quickly erode away, revealing the tomb that would then be ransacked by people and animals. But given that the pyramids were built by people who knew how to cut, move, and stack huge blocks of stone from a quarry to build a pyramid, it would not have been lost on the king or his advisors that the very same people could do precisely the reverse to dismantle and gain access to his pyramid. Certainly the pyramids—were these truly tombs of kings—would have had

guards and a priestly cult protecting them from being plundered, but often these were the very people the king had to fear the most. In this regard, a giant stone pyramid offered no more protection than the much smaller mastaba or rock-cut tomb.

Given the importance in the ancient Egyptian religion of preserving the king's mortal remains from desecrators and tomb robbers, building a tomb the size of a giant pyramid would have served only to act as a beacon, advertising for miles around the precise whereabouts of the tomb to those morally challenged individuals who would do it and the king harm. This situation seems all the more puzzling given that Khufu clearly understood the first principle of ensuring a secure and permanent burial: you create an underground tomb and you do not mark its location. We know that Khufu understood this basic principle because he buried his own mother, Hetepheres I, in such an unmarked tomb, one hundred feet underground at Giza. This tomb was only discovered by a freak accident in 1925, having been undisturbed and undiscovered for almost 4,500 years.

This raises the obvious question: If Khufu understood the best means to secure a safe and permanent burial (for his mother) with the use of a completely invisible, unmarked, underground shaft tomb, why then would he go against his own better judgment and build for himself the most highly visible tomb imaginable? As a secure and inconspicuous tomb, Khufu's Great Pyramid would have completely failed. For Khufu to have believed that such a massive structure could function as a secure and permanent burial site against tomb robbers contradicts his own common-sense actions with regard to his mother's new underground tomb, a tomb he built specifically underground and unmarked because her previous tomb had been found and robbed. And, it has to be said, common sense would have been as available to the ancient Egyptian culture as it is to our own.

In summary, if, as Egyptology asserts, the early, giant pyramids were conceived and built as eternal tombs for the kings of the period, then it seems that these monumental constructions were set in motion not for reasons relating to religion, nor to security or to vanity. It seems that there was some other, as yet unknown, motivation for the sudden introduction of these massively visible structures.

2. PYRAMID SHAPE

Without exception, the superstructures of mastaba tombs in ancient Egypt were always *rectangular* in shape, a tradition that stretched far back into antiquity, even in ancient Egyptian times. Curiously though, almost without exception, the pyramids of ancient Egypt were built *square;* that is, with their bases being regular quadrilaterals. There are only two exceptions to this, the first being Menkaure's pyramid (G3) at Giza, which, according to Lehner's measurements, is fractionally rectangular, with its north-south axis marginally longer than its east-west axis. (The reason for this will be discussed with fact 6, "Preconceived, Unified Planning.") The second rectangular pyramid is the very first pyramid ever built, the step pyramid at Saqqara attributed to Djoser, which again is marginally rectangular in shape. However, it is known that the construction of the step pyramid actually began with it as a square, and it was later modified to become slightly rectangular. Its eastern side was extended marginally in order to cover over and make secure eleven shaft entrances to the vast storage galleries beneath this pyramid.

But this raises a question: Why would the ancient Egyptians suddenly abandon an ancient tomb-building tradition of low, rectangular superstructures (i.e., mastabas) for their kings and queens in favor of giant, square superstructures (i.e., pyramids), and why would they *continue* to construct low, rectangular mastaba tombs and shaft tombs during the pyramid-building age (and long afterward) for every other royal or noble? In short, the square pyramid fundamentally contradicts the ancient Egyptian tradition of rectangular burial mounds, vis-à-vis the mastaba, a burial structure that the ancient Egyptians used for almost all of their history.

Furthermore, the burial chambers within the mastaba tomb (from which the pyramid supposedly evolved) were always deep underground, whereas the chambers within the pyramid were mostly either at ground level or high above ground level, thereby contradicting the ancient Egyptian axiom of "body to the earth, spirit to the sky." Accepting the further axiom that "form follows function," then this suggests that the square form of the pyramid served a different function to the rectangular form of the mastaba.

The question arises then: If the pyramids were not built as tombs then where

are the bodies of the kings from this period to be found? Well, given the importance of the king's role in death during the Old Kingdom period, it would naturally have been of paramount importance to protect the king's remains from looters and desecrators, and the best way of achieving this would naturally have been to have the remains placed in an unmarked tomb, deep underground, similar to the tomb that we know Khufu created for his mother, Hetepheres I, at Giza.

Intriguingly, there are two kings from this early period who had built pyramids and whose names have also been found on mastaba tombs. Egyptologist J. P. Lepre explains, "The Third Dynasty Pharaoh Huni built a sizable pyramid at Maidum, but it did not contain a sarcophagus. Yet a quite large mastaba located 275 miles to the south at Bet Khallaf did in fact contain a granite sarcophagus, within which were the total skeletal remains of a large man. This mastaba contained the royal name of Huni."[2]

Lepre also goes on to further state that a mastaba tomb bearing the name of Djoser, the Third Dynasty king and builder of the step pyramid at Saqqara, had also been found. In relation to this, a mummified foot found in the so-called burial chamber of the step pyramid at Saqqara, which some believed to be the remains of Djoser, has been radiocarbon dated to (at least) one thousand years *after* Djoser's reign, indicating an intrusive burial in this structure.

And so we must ask: If these mastaba tombs bearing the names of Huni and Djoser were actually their true burial sites, what then was the purpose of the pyramids that Egyptology attributes to these kings?

3. PROVINCIAL PYRAMIDS AND CENOTAPHS

The Provincial Pyramids are a series of seven small step pyramids situated along the banks of the Nile for most of its length. These small pyramids, which consensus Egyptology attributes to Huni, have neither internal nor external chambers of any kind, nor are there any ancillary structures such as chapels, temples, or causeways associated with them. The Provincial Pyramids represent something of a mystery to Egyptologists, but there is one thing that is absolutely certain about these small pyramids and on which Egyptologists are agreed: they categorically were *not* built to function as tombs.

Similar to the Provincial Pyramids are the pyramids that Egyptologists believe were built not as *actual* tombs but as cenotaphs, or false tombs. These cenotaphs appear identical in most every way to other pyramids that Egyptologists *do* regard as tombs, except they were not intended for burial but were merely built as symbolic tombs. And, just as in the pyramids that Egyptologists believe were *real* tombs, no body of any king or any funerary equipment has ever been found inside any of the false tombs.

So here we have two pyramid types—some small, some large—that were built by the ancient Egyptians and that Egyptologists freely acknowledge were never intended for burial of any sort. Given the fact that neither the Provincial Pyramids nor the cenotaph pyramids were ever intended as tombs, in the absence of any primary evidence, surely the wonder must be that any Egyptologist can assert with any authority that *any* pyramid was ever intended for the purpose of royal burial.

4. MULTIPLE PYRAMIDS

Related to the issue of the cenotaph pyramids are those pyramids constructed by Sneferu—four in total (three giant pyramids and at least one of the small Provincial Pyramids, the one at Seila). Why would a king require *four* pyramids, three of which were truly massive? The conventional view assumes that Sneferu desired to build a "true pyramid"; that is, a pyramid with perfectly smooth, sloping sides as opposed to the earlier step pyramid structures. This assumed objective of Sneferu is based on the simple fact that Sneferu didn't build any more pyramids after finally succeeding in building the world's first true pyramid, the Red Pyramid at Dahshur. But the fact of the matter is, we simply will never know if Sneferu would have gone on to build any more pyramids, because he died shortly after completing the Red Pyramid.

And then there's the fact that Sneferu's first "failure," the pyramid at Meidum (which some Egyptologists attribute to Huni), was later converted by Sneferu into a true pyramid. So we have to ask: Why did Sneferu need the later Red Pyramid when he obviously could have finished the Meidum pyramid as a true pyramid the first time around? In fact, after his first large pyramid "failure" at Meidum, Sneferu went on to build a second "failure" known as the Bent Pyramid. Conventional wisdom has it that it became apparent to Sneferu's builders after constructing about two-thirds of this pyramid that its slope angle was much too steep, and so the top third had to be given a shallower incline if it were to be completed safely and not collapse under its own weight. This resulted in the famous bend at the top of this pyramid.

But here's the thing: if Sneferu had desired a perfect, true pyramid from the outset, as Egyptologists insist, then clearly the Bent Pyramid was *never* going to satisfy this particular desire. So why then did Sneferu continue to complete this wholly imperfect and undesirable pyramid far beyond its point of "failure"? Sneferu could simply have halted the construction when the problem became known, stripped down the Bent Pyramid, and used the stone from that failed structure to start a new attempt at a true pyramid (assuming that was indeed his goal), and he could have done so secure in the knowledge that he already had a pyramid tomb standing by at Meidum that could be converted to a true pyramid at any time should he die prematurely and be unable to complete his mission.

That Sneferu went on to complete the Bent Pyramid far beyond its point of failure—including fitting casing stones and constructing a causeway and a temple—strongly suggests that the construction of a true pyramid was probably not the only goal of this king and that it seems also to have been Sneferu's aim to build as many pyramids in his lifetime as he possibly could, albeit some better than others.

All of which begs two obvious questions: Why would an ancient Egyptian king require four (or more) pyramids, and why would he set out to build as many pyramids in his lifetime as he possibly could? If we assume one of these structures was intended as an actual tomb, why would an ancient Egyptian king require two (or three) spare tombs? Does this make sense? Or is there something much more fundamental that we are misunderstanding about the true nature and function of these structures given that so many were built by just *one* ancient Egyptian king?

5. ANONYMOUS CHAMBERS, NAMELESS SARCOPHAGI

According to Egyptology, relatively few mastaba tombs from the Old Kingdom period or the sarcophagi placed therein were decorated or inscribed, although it is often the case that the chapel attached to the mastaba was usually inscribed with the deceaseds' names and titles (which is how Egyptologists have been able to piece together much of the family history of this period). While this observation is generally true, it seems that Khufu's family went a stage further whereby his offspring (including Crown Prince Kawab, who actually died *before* Khufu) were placing inscriptions (their names and titles) on their actual *sarcophagi* placed within the mastaba tomb.

Egyptologists speculate that the so-called mortuary temples built onto the pyramids were the equivalent of the chapels attached to the mastabas and that in these places the king's names and titles would have been inscribed. Alas, however, few pyramid mortuary temples (or valley temples) have survived, thus any evidence of inscriptions of the kings to whom Egyptology attributes the various pyramids is also unavailable. And those fragments that have been found in the area of the pyramid temples cannot be guaranteed to have originated there.

Figure 3.1. Sarcophagus of Kawab (son of Khufu) with inscriptions, Cairo Museum

All of which raises the obvious question: If Khufu's offspring (including those who died *before* Khufu) were having their names and titles inscribed directly onto their sarcophagi, why do we find Khufu's supposed sarcophagus within his pyramid tomb completely devoid of such official inscriptions? Why didn't Khufu follow this "family tradition" and have his own sarcophagus inscribed with his names and titles?

As stated, Khufu's eldest son, Kawab, believed to have been the crown prince, died quite young and certainly before Khufu. We find that both his chapel and sarcophagus are inscribed.

An inscription in the doorway of Kawab's mastaba reads, "Her son, her beloved, Ka-wab, the daughter of her god, she who is in charge of the affairs of the jmAt,[*1] Meritites, his mother, who bore (him) to Khufu."[3]

Figure 3.2. Sarcophagus of Meresankh II (daughter of Khufu) with inscriptions, Museum of Fine Arts, Boston

Inscriptions are also found on the sarcophagus of Kawab within the mastaba tomb itself: “Priest of Selket, Kawab . . . the king’s son of his body, Kawab . . . king’s eldest son of his body, officiant of Anubis, Kawab.”[4]

Likewise, the sarcophagus of Khufu’s daughter, Meresankh II, is also inscribed with inscriptions that include her name: “King’s Daughter of his body, Meresankh.”[5]

And the sarcophagus of Minkhaf I, another son of Khufu, is also rendered with various offering inscriptions that also include his name. As noted in Wikipedia, “Minkhaf held the titles *Eldest king’s son of his body, Chief Justice* and *Vizier* and these inscriptions, including his name, were found in four niches within the chapel of his mastaba tomb”[6] (italics added).

Clearly then, we see a pattern emerging here regarding the funerary arrangements of Khufu’s children, at least one of whom died before Khufu himself. It seems to have been customary at this time to inscribe hieroglyphic inscriptions—including the deceased’s name and titles—within the adjoining mastaba chapel *and* directly on the sarcophagus that was placed within the mastaba tomb. In light of such contemporary evidence, it does seem somewhat peculiar that not a single official inscription of the deceased (name or titles) has ever been found in *any* of the chambers or on any of the sarcophagi of the early, giant pyramids of that era, including Khufu’s Pyramid.

Conventional Egyptology would simply dismiss this anomaly as being down to the individual wishes of the various kings involved. However, this is to ignore

a much greater issue here. Given the important role played by the dead king in ancient Egyptian society, the absence of the king's name anywhere in his supposed funerary structure, including his sarcophagus, presents a most peculiar and even dangerous situation. To understand why this is so requires a little understanding of ancient Egyptian religious thought.

To the ancient Egyptians, a person's soul was composed of nine different aspects or elements. While all aspects of the soul were important and interacted with each other, chief among these components were the *ka* (the life force), the *ba* (an individual's personality), and the *ren* (an individual's name).

Given that the afterlife at this early period of Egyptian history was reserved *only* for the king and given what we understand about the symbiotic relationship between the ba and the ren, it seems somewhat peculiar that—unlike some of the mastaba tombs of the time (including those of Khufu's children, as stated earlier)—we find no official hieroglyphic inscriptions of the reigning king's name or titles on *any* sarcophagi or in *any* of the early, giant pyramids that were supposedly built for these kings as their eternal tombs.

While it was believed that the ka would always remain with the body of the deceased within the tomb, it also was believed that the ba would fly away each day and return to the tomb, its eternal roost, each night, provided, of course, that it could find the correct tomb and mummy to return to. Were the ba to fail in returning to the deceased (for whatever reason), then the king would have been deemed to have died a second time, from which there was no recovery; the king's soul would be consigned to eternal oblivion, his blissful afterlife forever terminated, thus potentially plunging the kingdom itself into chaos, for the king would no longer be able to commune with the gods on behalf of his people to ensure their continued well-being.

To assist the ba in finding the correct tomb and mummy and in keeping with the ancient Egyptian axiom "He lives whose name is spoken," the name of the deceased would be inscribed on the walls of his or her tomb and/or on the sarcophagus itself. Inscribing the deceased's name in stone was to give the name permanence, that the name would become "*living words.*" In this way the ba would know that it had found the correct tomb and be able to return safely to the correct mummy each and every night, thereby maintaining the king's place among the gods and safeguarding the future of the kingdom. Indeed, it was believed by the ancient Egyptians that to erase a person's name—including that of the king (a practice that became known as *damnatio memoria*)—would

condemn the deceased's soul to eternal oblivion. In the online magazine *Egyptological*, Brian Alm writes:

> Of course, writing demarcated the elite from the rest of society, since it is likely that no more than 1% of the population was ever literate, but in these early times, long before the Afterlife was extended to non-royals, the exclusivity had a more profound meaning than just social standing. Writing would not be used to express ideas and narrative in a grammatical scheme until several centuries later; at this point the written word simply noted the names of things, especially—and very importantly—the names of people.
>
> The all-important name (*ren*) was associated with the furnishings of the tomb along with the tomb's owner: the deceased expected to take his treasures with him to his eternal home. The name, one of the nine aspects of being, or manifestations of the self . . . was a magical necessity of existence already acknowledged in the ontology of Predynastic times as a requisite for eternal life.[7]

Alm also showed the importance of the written word, especially names and titles, by including a photo of the Old Kingdom stele of Nefermaat from the Oriental Institute in Chicago, on which Nefermaat is proclaimed as "king's eldest son," "overseer of the works," and the vizier to Sneferu. The stele's text says, "He is one who made his signs in writing that cannot be erased."

And so it seems that for the king to enjoy an everlasting afterlife then his ba *must* be able to find the correct tomb and mummy each and every night—forever. It goes without saying, but the task of locating the correct pyramid tomb and mummy would have been made immeasurably easier for the king's ba with the simple inclusion of his name, inscribed as "living words" into the stone of the burial chamber and/or directly on the sarcophagus itself—as was done for the mastaba tombs and sarcophagi of Khufu's children.

It stands to reason then, that in the complete absence of such vital identifiers inscribed directly on the sarcophagi or within the burial chambers of these pyramids to assist the king's ba in locating his tomb and mummy, we have to give serious pause for thought and ask whether the early, giant pyramids could have successfully functioned as effective tombs for the kings of this period for whom they were supposedly built. And if the answer to that question is no, then we have to give serious consideration to the possibility that these early, giant pyramids might actually have been conceived and built to serve some other

function altogether.

6. PRECONCEIVED, UNIFIED PLAN

Conventional wisdom asserts that each pyramid of ancient Egypt was designed as a single entity, a royal funerary complex, with little consideration given to what had gone before or would come after. In short, there was no grand, preconceived, unified plan for any of the pyramids—so we are led to believe. For Egyptology to ever concede that such a preconceived, unified plan is clearly exhibited in the early, giant pyramids would drive a considerable hole in the pyramid tomb theory, so it is perfectly understandable why Egyptology staunchly resists such notions.

In the previous chapter we observed how the first sixteen or so pyramids in ancient Egypt may have been designed to represent or may have come to represent the sixteen dismembered body parts of Osiris and, in their very placement on the Egyptian landscape, can be shown to resemble a crude outline image of the iconic Osiris figure. But there is considerably more to this grand, unified plan, and it is this second aspect of the planning that may well have been responsible for the association of the god Osiris with the constellation of Orion (i.e., the belt stars).

The three main pyramids at Giza are a prime example of such preconceived, grand planning. In chapter 1, it was stated how the layout of the three Giza pyramids is very similar to the pattern of the Orion's Belt stars, as proposed by Robert Bauval. What is not so well known is the more recent discovery that the relative proportions of each of the three main Giza pyramids can *also* be shown to derive—in a simple and systematic fashion—entirely from the pattern of the Orion's Belt stars shown in step 1 in figure 3.3a. The 16 steps that follow demonstrate the derivation of these proportions (figures 3.3a–3.3d).

Step 1. Plot the belt stars (Al Nitak, Al Nilam, and Mintaka) accurately on a blank sheet of paper.

Step 2. Extend a line (L1) between Al Nitak's center and Al Nilam's center.

Step 3. Double the length of L1.

Step 4. From the end of L1, extend a line (L2) to Mintaka's center.

For steps 5–8, see figure 3.3b.

Step 5. Double the length of L2.
Step 6. Box the L2 diagonal. We now have base B3.
Step 7. Mirror base B3. We now have base B3a.
Step 8. Replicate L1 and label it L3.

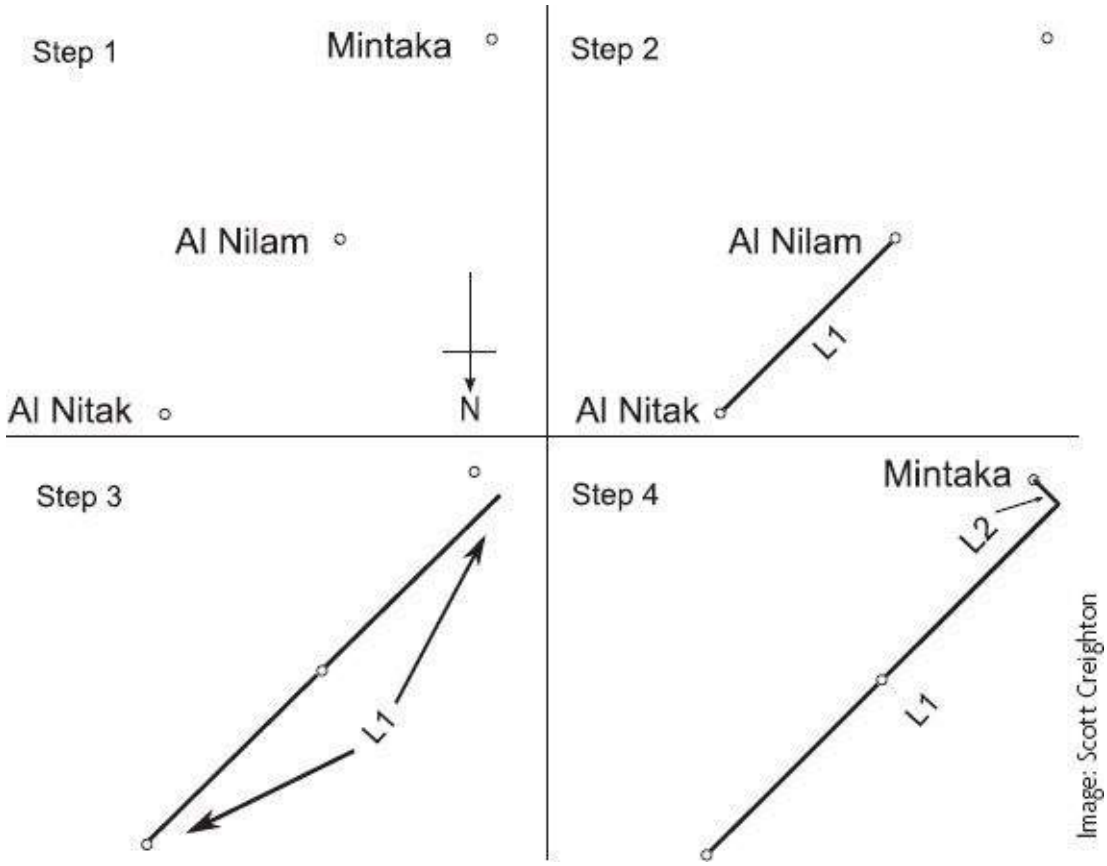

Figure 3.3a. Creating the relative proportions of the Giza pyramids from Orion's Belt, steps 1–4

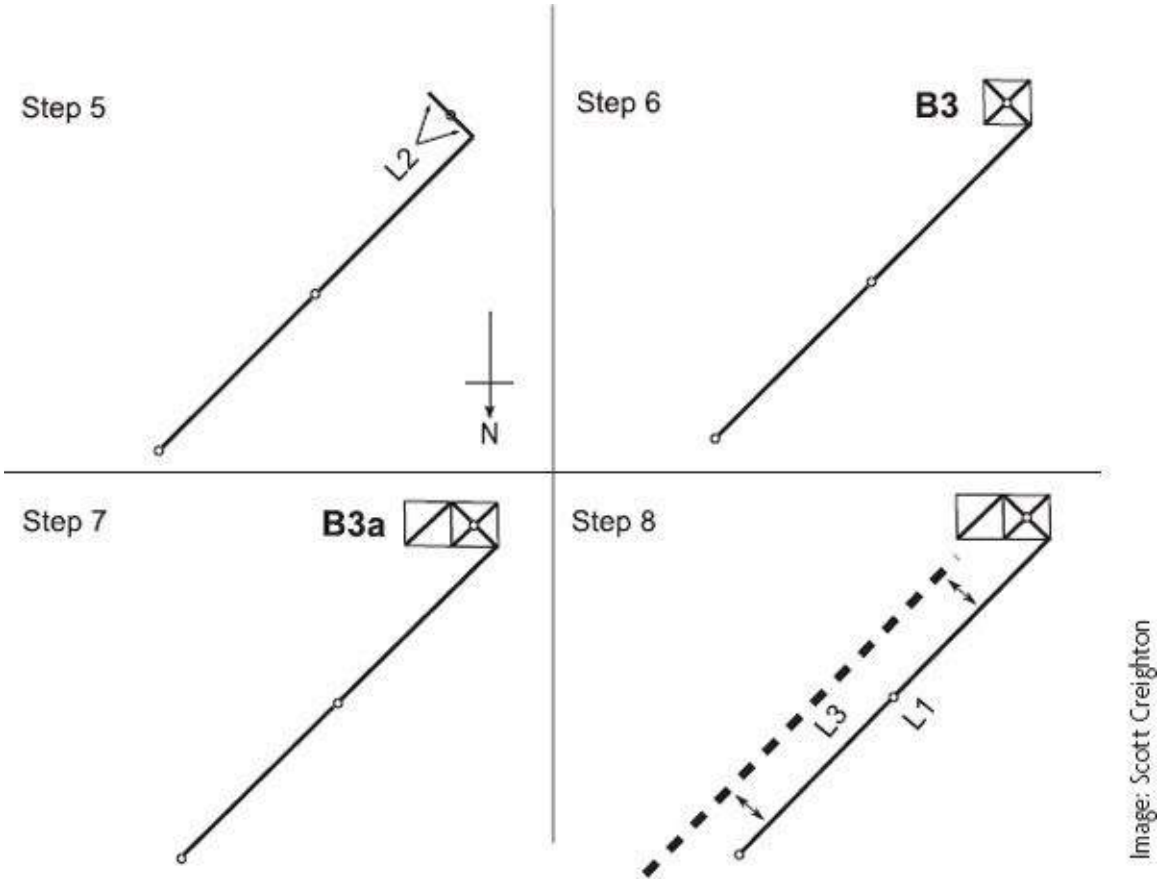

Figure 3.3b. Creating the relative proportions of the Giza pyramids from Orion's Belt, steps 5–8

For steps 9–12, see figure 3.3c.

Step 9. Place L3 through the diagonal of B3a.
Step 10. Remove B3a.
Step 11. Extend a line (L4) from the midpoint of L3 to Al Nilam's center.
Step 12. Double the length of L4.

For steps 13–16, see figure 3.3d.

Step 13. Box the L4 diagonal. We now have base B2.
Step 14. Extend a line (L5) from the endpoint of L3 to Al Nitak's center.
Step 15. Double the length of L5.
Step 16. Box the L5 diagonal. We now have base B1.

We have now produced the three-base (B1, B2, and B3) geo-stellar fingerprint for Orion's Belt (step 16). If we compare the relative proportions of these three bases with the relative proportions of the three Giza pyramids (G1, G2, and G3), we find that there is an extremely high agreement between the two sets of bases. It is worth noting here that were we to have commenced this design technique by drawing the initial line (L1) from Mintaka's center to Al Nilam's center we would have ended up with three entirely different bases that in no way match the relative proportions of the Giza pyramids. Only by starting the design with an initial line (L1) drawn from Al Nitak's center to Al Nilam's center can three bases be produced that relatively match the three Giza pyramids. This difference is important to understand, and its significance will be revealed in chapter 7.

For the moment, however, what is also significant about the above design method is that it requires the smallest of the Giza pyramids (the pyramid attributed to Menkaure, otherwise denoted as G3) to be designed *first* in order that the proportions of the other two Giza pyramids, G2 and G1, can then be determined. In other words, the *design sequence* of the geo-stellar fingerprint is the reverse of the actual *construction sequence* whereby, according to conventional Egyptology, G3 was built last, even though in the geo-stellar fingerprint of Orion's Belt, it is designed first. As such this constitutes a preconceived, unified design, a design, it should be said, that also includes the two crucial sets of three smaller satellite pyramids known as the Queens' Pyramids.

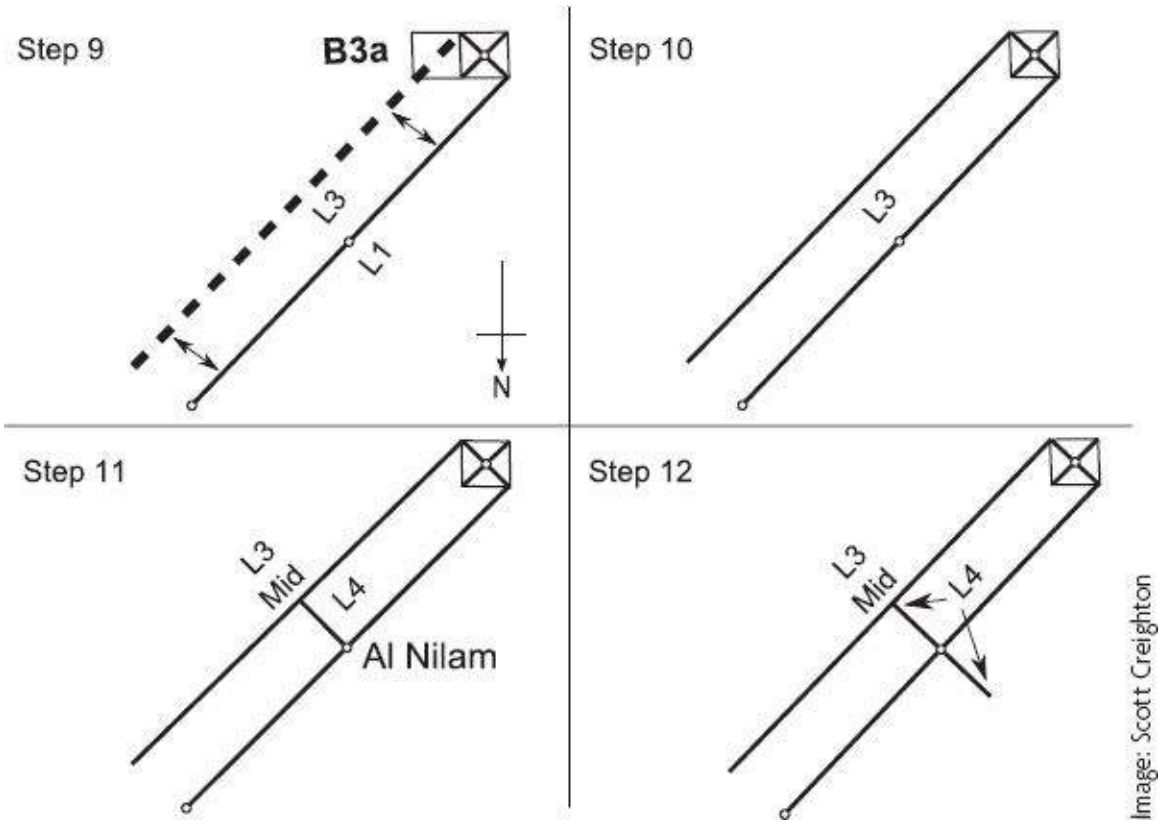

Figure 3.3c. Creating the relative proportions of the Giza pyramids from Orion's Belt, steps 9–12

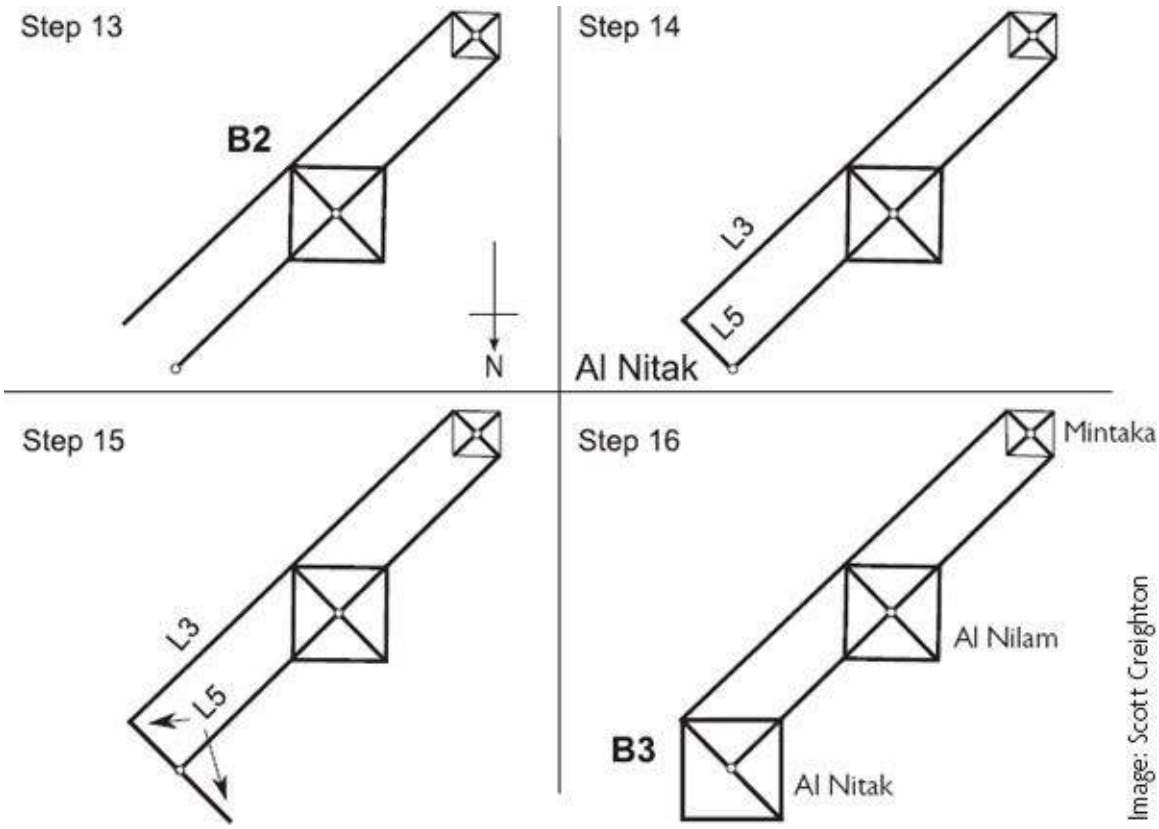

Figure 3.3d. Creating the relative proportions of the Giza pyramids from Orion's Belt, steps 13–16

Furthermore, in using the Orion's Belt stars in this manner we find that B3 (G3's counterpart) will *always* result in a base that is very fractionally rectangular in shape on its north-south axis, while B2 and B1 (counterparts to G2 and G1) will be almost perfectly square. And, as pointed out earlier in this chapter, G3 is indeed very slightly rectangular on its north-south axis, as noted by Lehner, who wrote, "Menkaure's Pyramid was named 'Menkaure is Divine.' Smaller than his predecessors' pyramids at Giza, it has a base area of 102.2 Ã— 104.6 m (335 Ã— 343 ft)."[8]

Even today, using satellite mapping technology, we can observe the clear geometric relationship between the pyramids at Giza that is a natural outcome of the design method described above. We can easily observe at Giza how these structures are aligned along "inter-quarter lines" (figure 3.4) that bisect the sides of these pyramids and their Queens' Pyramids. Such a geometric relationship is unlikely to be the result of simple, random design and placement of these structures.

That it can be shown that the relative proportions of the main pyramids at Giza can be derived simply and easily from the arrangement of the Orion's Belt star asterism is claimed by some as nothing more than coincidence. This is highly unlikely in the extreme. As stated in chapter 1, the Orion constellation, known to the ancient Egyptians as Sah, became the stellar personification of the ancient Egyptian god Osiris, the god of rebirth and regeneration who is associated with agriculture. In their 1994 book, *The Orion Mystery*, Robert Bauval and Adrian Gilbert show that the pyramids at Giza present an almost perfect match in their layout to the arrangement of the Orion's Belt stars. So here we have two quite separate correlations of the Giza pyramids with the Orion's Belt stars: their layout (i.e., belt asterism) *and* their relative proportions (i.e., belt geo-stellar fingerprint).

Now, the odds of such an outcome occurring by simple chance are somewhere in the order of trillions to one against. This is to say that if you were to create three random dots on a sheet of paper and ask a friend to create three random bases, to then find that the fingerprint created from your three dots matches the relative proportions, layout, order, and orientation of the three random bases drawn by your friend would be unlikely in the extreme. Yet, remarkably, such a highly unlikely occurrence is precisely what we have before us with the main pyramids at Giza. It is simply inconceivable that such an occurrence could result from simple random chance, so we have to conclude that Giza, contrary to what we are told by conventional Egyptology, is most likely the result of a preconceived, unified plan, a plan that also included the two sets of three Queens' Pyramids as the culmination markers of Orion's Belt (more on this in chapter 7).

If such a preconceived plan had been implemented then it is reasonable to assume that the creation of the actual plan could have been conceived and put together very quickly—within days or even hours. Given that ancient Egyptian kings, according to the conventional view, did not plan the tomb of their sons or their grandsons and certainly not their sons' or grandsons' queens' pyramids, then such a preconceived plan to construct nine pyramids at Giza presents a significant obstacle to the conventional view of these structures having been constructed as tombs. And given that this plan (at Giza) would take around eighty years to implement, if they were conceived as tombs, how did the creator of the preconceived, unified plan know that eighty years into the future the king of that time (Menkaure) would only require three queen's pyramids? How would the designer of this preconceived plan have known that Khafre would not require

any queen's pyramids (despite the fact that Khafre actually had five known queens—more than the other two Giza kings)?

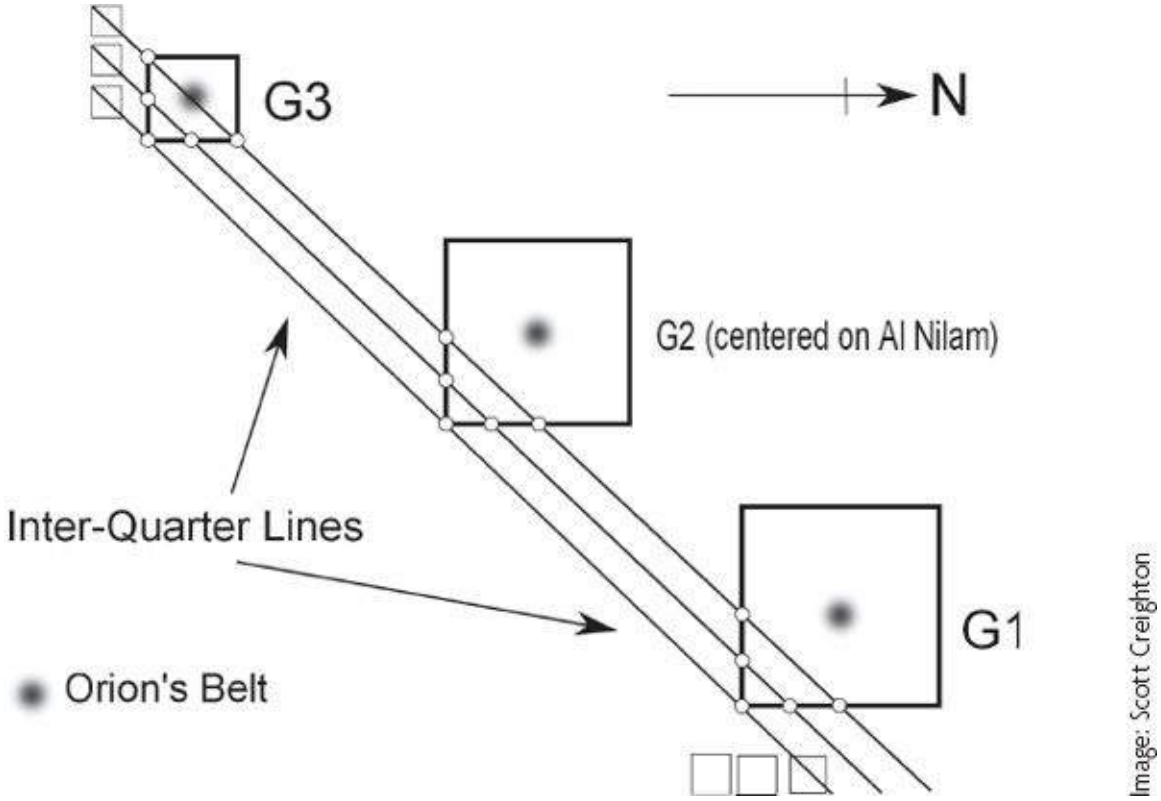

Figure 3.4. Geometric relationship between the Giza pyramids and their Queens' Pyramids

The simple truth of the matter here is that the planner of Giza simply could not have known the future, ergo he could not have been designing these pyramids as tombs of kings and queens because he simply could not have known how many pyramid tombs to include in the plan. Yet the telltale signs of a preconceived, unified plan are clear for all to see, and in terms of probability, its existence is virtually beyond doubt. As such we have to conclude that the creator of this plan could not have been designing this set of pyramids at Giza (and by extension all other pyramids constructed before Giza) with the intention of the burial of future kings and queens, so we must further conclude that these structures were designed to serve some other purpose altogether.

7. PYRAMID SECURITY

Within the Great Pyramid of Khufu there are a number of curious features that permit us to question just how secure such a structure—were it to have been constructed as the king's tomb—would have been in fending off unwanted attention. As noted earlier in this chapter, the sheer physical size of the early pyramids would have attracted the attention of the unscrupulous for miles around. Remarkably, when these undesirables reached the Great Pyramid, it seems that its architect, far from making the structure impossible to breach, designed it in such a way as to practically *ensure* that it *could* be breached—not exactly the kind of thing a king seeking an eternal afterlife among the gods would remotely have sanctioned. There are a number of features of the Great Pyramid that lead us to this conclusion.

The Trial Passages

Slightly to the east of the Great Pyramid on the Giza plateau are a series of passages hewn out of the bedrock that run deep underground. The arrangement of these "trial passages," as they are known to Egyptologists, almost exactly replicates (on a much smaller scale) the internal arrangement of the passage system within the Great Pyramid, including the concealed Ascending Passage that leads to the upper chambers of the pyramid, including the supposed King's Chamber. In effect, the trial passages could be viewed as a map of the interior of the Great Pyramid, showing where to find and how to access the vital upper chambers within the structure.

The Descending Passage

The original entrance to the Great Pyramid was via a stone block that is believed to have swiveled open, revealing the long, unblocked Descending Passage. This narrow passage would take anyone who entered directly down to the lowest chamber known as the Subterranean Chamber. At around the halfway point down the long Descending Passage is the overhead junction of the Ascending Passage, and onward through the passage to the Grand Gallery lie the Ante Chamber and then the King's Chamber. We have to ask, however, why would the Descending Passage have been left unblocked?

When we consider how Khufu filled in the shaft entrance to his mother's underground tomb at Giza with rock-and-gypsum cement, we have to ask why this wasn't done for the tomb of the king. If this was to be the tomb of Khufu, it is simply inconceivable that Khufu would have permitted such easy access down this passage to allow intruders to attack the Prism Stone that once concealed the entrance to the Ascending Passage.

The Ascending Passage, the Granite Plugs, and the Prism Stone

As stated above, the entrance to the Ascending Passage was once concealed by a block of limestone known as the Prism Stone (now lost), and behind this an additional three massive granite plugs served to block this passageway. Given the estimated weight of the Prism Stone (several tons), manipulating it within the narrow confines of the passage system would have been virtually impossible, because it would have been physically impossible to deploy enough manual labor in this tight space for such an awkward and labor-intensive task. This has led some to argue that the Prism Stone was actually set in place *during construction* of the pyramid and, like the stone block at the entrance to the Descending Passage, perhaps swiveled open to allow entrance to the Ascending Passage. It has been calculated that the opening would have been around eighteen inches, making it difficult in the extreme for any funeral party with a bound mummy to pass through in any dignified fashion in order to reach the upper chambers for the final burial of the king.

It is further believed that the Prism Stone was set in place to camouflage the three granite plugs that were supposedly slid into place down the Ascending Passage (from their supposed storage location in the Grand Gallery) after the funeral party had squeezed themselves back out of the Ascending Passage through the narrow gap provided by the open Prism Stone. Because the passageways are mostly limestone constructions, anyone passing down the Descending Passage would immediately have noticed the different-colored granite plugs that blocked the entrance to the Ascending Passage, hence the need for the limestone Prism Stone that effectively covered the granite plugs, thus camouflaging the entrance to the upper passage system. If that was the case then we have to ask why the builders of the Great Pyramid simply did not block the Ascending Passage with large limestone blocks, thereby making it harder to distinguish them from the surrounding limestone structure. And why mark the location of the Prism Stone (thus the entrance to the upper passage system) on the floor of the Descending Passage? In this regard, one of the earliest pyramid

explorers, the Astronomer Royal of Scotland Piazzi Smyth, wrote the following about the location marker, which was found by accident.

> Here, therefore, was a secret sign in the pavement of the entrance-passage, appreciable only to a careful eye and a measurement by angle, but made in such hard material that it was evidently intended to last to the end of human time with the Great Pyramid and has done so thus far.
>
> Had, then, that ceiling stone never dropped out at all, still the day might have come when the right man at last, duly instructed, would have entered the passage, understood that floor sign, and, removing the ceiling-stone opposite to it, would have laid bare the beginning of the whole train of those subaerial features of construction . . .[9]

Why would the builders create a "secret sign" on the floor of the Descending Passage, indicating the entrance to the Ascending Passage right overhead? Why leave such clues to assist in the discovery of the concealed upper passage system where, supposedly, the king's burial chamber was to be found? Surely such would have been the *last* thing Khufu would have wanted in his tomb since such markings would surely have invited inquiry, thus leading the intruder to investigate the right spots that would have inevitably led to the discovery of the upper passage system and the chambers beyond. As the tomb of Khufu, it is again quite inconceivable that such clues would have been set in place to assist an intruder.

Granite Plugs

As stated briefly above, beyond the Prism Stone blocking the lower end of the Ascending Passage are three granite plugs (still in situ), each weighing around five tons. Conventional thought asserts that these blocks would have been stored within the Grand Gallery and slid down the Ascending Passage after Khufu had been laid to rest in the King's Chamber at the top end of this passage system. The workers who pulled the release mechanism would then have made good their own escape via some unknown, secret passage system (presently believed to be the so-called Well Shaft) leading from the Grand Gallery to the unblocked Descending Passage. Of course, such an ancillary entrance completely bypasses and fatally undermines the granite plugs that were supposed to secure the tomb's main entrance passage.

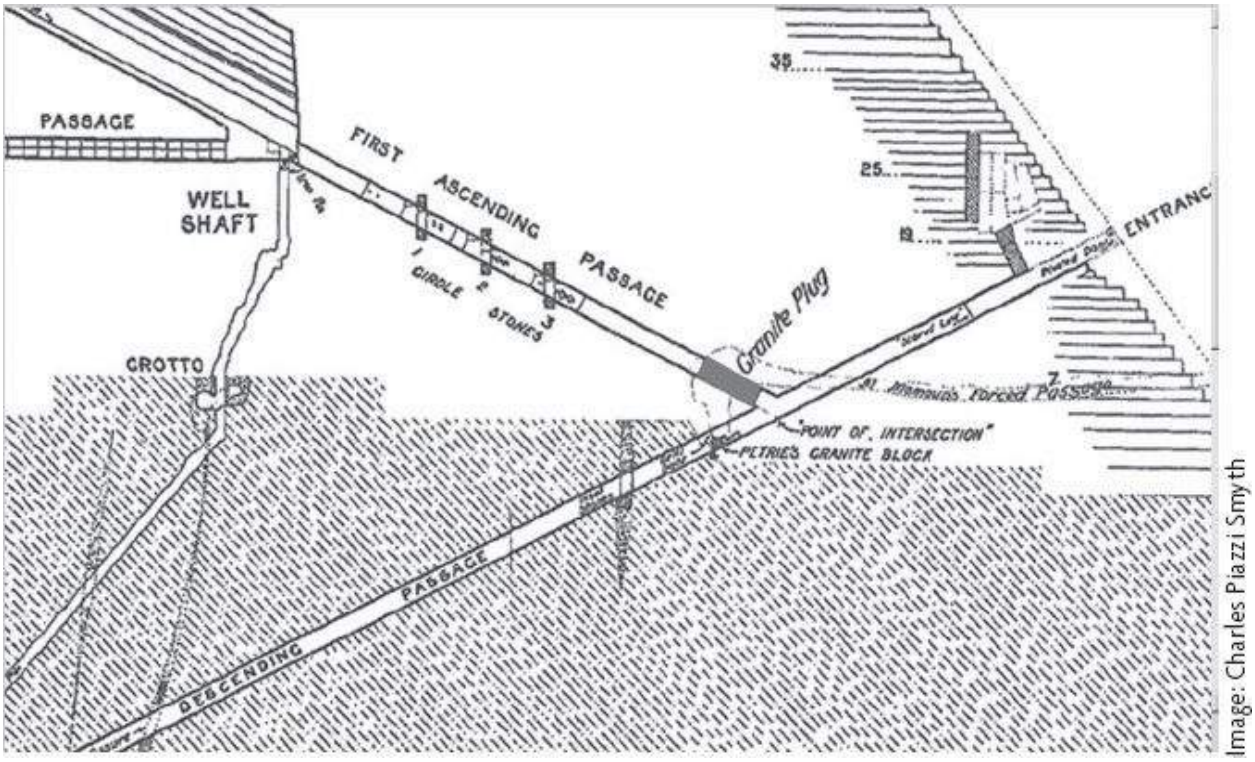

Figure 3.5. Great Pyramid passages with the granite plugs

But why were these unwieldy granite blocks even deemed necessary? As already mentioned, entrance to the pyramid could have been secured by simply blocking the Descending Passage with rock-and-gypsum mortar in the same manner that Khufu had sealed his mother's shaft tomb at Giza. And keeping in mind that all of this had to work the first time, how would the descent of these blocks into position within a gradually tapering passageway have been controlled and assured? In the words of Philip Femano, Ph.D.:

> It is not conclusive that the builders chose to rely on the unpredictable behavior of gravity on two hewn and unpolished surfaces with different densities and coefficients of friction sliding along each other within a steep tunnel of carved block masonry, as their preferred method of securing a royal burial chamber. Likewise, it is not clear why the builders did not simply seal the pyramid at its main entrance on the north face, sliding the plugs from outside the pyramid into the initial, upper segment of the Descending Passage, capping the plugs with a casing stone, and dissuading anyone from entering the entire pyramid in the first place.
>
> Unless one is to believe that the builders assumed ancient plunderers would stumble on the original entrance, crawl down the unremarkable

> Descending Passage to reach what appeared to be an “unfinished” Subterranean Chamber and be convinced that there were no other passages to plunder in the Great Pyramid, one is left to wonder why the builders allowed easy passage (or at least such an easy breach) down the Descending Passage at all.[10]

The Ante Chamber and the Portcullis Slabs

Having discovered the upper passage system (if by no other means then certainly via the clues left behind by the builders), the task for the intruders would then have been to work around the granite stones that blocked this passage (assuming, of course, that they had not discovered the secret exit used by the builders). Though difficult, this would not have been an insurmountable problem for a people who could quarry limestone and granite blocks of anywhere from 2.5 to 70 tons and maneuver them into place to construct a pyramid. If they could do that then it is not unreasonable to suggest that they could just as easily do the reverse by cutting around the much softer limestone.

Once entry into the Grand Gallery had been achieved, then the only remaining “security measures” protecting the King’s Chamber were three portcullis slabs made of granite and set in place within the Ante Chamber, a small room just before the King’s Chamber. But once again, as if the builders went out of their way to assist an intruder, these granite slabs would have presented little resistance since the builders—rather conveniently—had left in place a fourth granite block known as the Granite Leaf (see figure 3.6). This stone, which is set into two grooves on either side of the Ante Chamber (akin to a sliding guillotine), could easily have been used as a counterweight mechanism with which to raise each of the three portcullis blocking stones, thereby allowing easy access to the King’s Chamber.

Figure 3.6. Ante Chamber portcullis system with Granite Leaf. (A) Shows the Granite Leaf being raised using a wooden lever under the “ boss” (small stone protrusion), and (B) shows the Granite Leaf being used as a counterweight to raise one of the granite blocking slabs to the King’s Chamber. Images by Scott Creighton. Image B based on Adam Rutherford original.

So, once again we are left puzzled and perplexed as to why the builders would conceivably have left in place such a convenient and useful mechanism that would surely have assisted an intruder in gaining easy access into the heart of the pyramid. It is simply inconceivable that if this pyramid were the tomb of an

ancient Egyptian king that such a mechanism would have been left in place to further assist anyone who might happen to reach the upper levels of the pyramid. For the builders to have left this counterweight stone intact is akin to a guard locking a bank vault and leaving the key in the lock. Simply removing this Granite Leaf after the King's Chamber had been sealed would have made it so much more difficult (though not impossible) for any intruder to then raise the portcullis blocking slabs. Yet the Granite Leaf counterweight was left in place and intact—the key left in the lock—and we have to ask why.

In summary then, what we have here is an accessible "map" of the Great Pyramid's interior passage system (the trial passages) outside the pyramid. We have easy access to the Descending Passage as it was never blocked. We have the camouflaged junction to the upper Ascending Passage conveniently marked on the floor of the Descending Passage. And we have an intact counterweight system to facilitate the raising of the portcullis blocks that were supposedly the final barrier to the King's Chamber.

Given all of this, one has to conclude that the ancient architects went out of their way to ensure that the Great Pyramid (and its internal chambers), although reasonably secure, was in no way as tightly secure as the builders *could* have made it; it is almost as though the builders were going out of their way to *invite* relatively easy access to whatever lay within.

8. INTRUSIVE BURIALS

Intrusive burials were part of a long tradition in ancient Egypt. Two such burials were discovered at Giza within G3 and G3b (Menkaure's Pyramid and one of his queens' pyramids). We have to ask: Why would such an intrusive burial be allowed to occur? Intrusive burial implies that an original burial was removed to allow for the intrusive burial to then take place. While these two acts may have been separated by a long period of time and completely unrelated to one another, it was the custom in ancient Egypt that if the body of the king was desecrated or otherwise destroyed by looters, then a ka statue could be made and placed within the tomb to serve in place of the original royal mummy that had perhaps been desecrated and/or removed. In this way the King's afterlife among the gods would be secured, as would the security of the kingdom. This religious belief and the facts that no original burial was found and that it was clearly considered permissible for someone else to use the pyramid as a tomb much later all strongly suggest that these pyramids had never actually been used as tombs in the first place.

9. QUEENS, BOATS, AND SOUL SHAFTS

Given that the afterlife in early Egyptian dynastic history was the reserve of the king and the pyramid was regarded as his “instrument of transfiguration and ascension” that would transform the king’s ka and ba into an akh that could then ascend to the gods in the heavens, why then would pyramids have been constructed for Khufu’s queens? Because it was not expected that the queens would receive such a soul transfiguration, why would it have been deemed necessary to build them an instrument of transfiguration; that is, a pyramid?

The same question can be asked of the boat pits around some of the Queens’ Pyramids at Giza. If the afterlife was reserved for the king and his soul would journey through the Duat on a ritual vessel known as a solar barque, why were such features provided for queens when it was not expected that they would receive such an afterlife?

And what of the so-called star shafts of the Great Pyramid? If, as some authorities assert, the king’s soul was intended to traverse these shafts in order that it could target its stellar destination and project itself in the right direction up into the starry heavens, why then would the king require several unassembled solar barques buried outside his pyramid? These unassembled boats were buried underground, while the internal soul shafts pointed skyward. Was it expected that the king’s soul would come down from the heavens, having been projected there by the star shafts, to then embark on a solar barque on which to sail back up into the heavens? These mainstream ideas are somewhat inconsistent and seem to be at odds with each other and surely demand a more cohesive explanation.

10. THE SARCOPHAGI

Some of the key pieces of evidence Egyptologists hold up as proof that the early, giant pyramids were used as tombs for ancient Egyptian kings are the stone containers found within the internal chambers of a few of these early pyramids—stone containers that appear remarkably similar to the sarcophagi found in known mastaba tombs of the period. Appearances, however, can be deceptive.

First, while fragments of bone have been recovered from a number of the early, giant pyramids, only three pyramids from this period (G1, G2, and G3) contained a stone box, and of these none have yielded the remains of any ancient Egyptian king. As mentioned in chapter 2, a number of burials *were* found in some pyramids, but these are known to have been intrusive burials from much later times.

Second, a number of so-called sarcophagi have been found in modern times completely intact and unopened, having been undisturbed since first being placed in the chamber. When these stone containers were opened they were found to be empty. The conventional answer to this conundrum posited by Egyptology is that the king was perhaps killed in battle or that the body was otherwise unavailable at the time of burial. But this still does not explain why the supposed “sarcophagus” or “burial chamber” should have been found empty because, as stated previously, it is known that the ancient Egyptians in situations where the dead king’s body was in absentia would fashion a ka statue of the king made of wood or stone and place this within the sarcophagus or within the tomb. We have to ask then: Why were no surrogate ka statues of the king found in these undisturbed “sarcophagi” or “burial chambers”?

There are further issues concerning these stone containers found in some of the early pyramids that raise further questions as to their true function, and these issues will be discussed in chapter 9.

It seems then that for the best part of two hundred years, consensus Egyptology has insisted that the early, giant pyramids of ancient Egypt were conceived and built as the eternal resting place of the deceased king and as his instrument of transfiguration and ascension that would carry him up to the heavenly realm and to his eternal afterlife. However, it is extremely difficult to reconcile the facts presented in this chapter with the overly simplistic and

somewhat romantic and naive notions of the Egyptologists. There are simply too many anomalies, too many affronts to common sense, too many facts that simply do not fit the tomb paradigm that is so embraced by the Egyptologists.

Once again, however, this is not to say that the early, giant pyramids could not have been used as tombs at some point in their long history—of course they could. But it simply does not seem, from the available evidence and the facts presented here, that they could have been *originally* conceived and constructed with such a notion in mind, at least not at the beginning of the pyramid-building age.

If it is evidence that we must base our theories on, then the evidence presented in this book strongly suggests that these early, giant pyramids were not at all funerary in nature but seem to have been constructed with some other, grander purpose in mind, a purpose that seems to be associated with a chthonic ritual of "revivicating" the Earth.

10

Journey’s end

I always looked for excavations, for the secrets under the sand.

ZAHI HAWASS[1]

Time was running out. It was a little after 8:00 a.m., and I was scheduled to depart Egypt at 4:00 p.m. that afternoon, and still I had not been able to achieve my goal. Squatting on the floor of my hotel room, surrounded by all manner of maps of Giza and Cairo, I tried to find an alternative route to the apex point to the southwest of the plateau. For certain the direct approach crossing the Giza plateau itself was simply not possible, with Zahi’s Wall and the guards patrolling it being something of an insurmountable obstacle. I would have to circumvent the plateau and approach the apex location from the opposite direction in the south. My close brush with the Egyptian authorities the previous day remained all too vivid in my mind, a reminder, should I have needed it, of just how difficult my task would be. I had managed to talk my way out of trouble on that occasion but knew that you can only push your luck so far; next time I might not be so fortunate.

But I had come so far and had literally been within a few hundred yards of my goal, the apex point, only to be thwarted at the very last moment. Lying on the floor beside me was my small granite pyramid, my little gift to Osiris. Looking at it now brought mixed feelings of failure but also of resolve. I glanced at the table clock. There was time enough yet, and I felt I had to give it one more try for I did not know how long it would be before I could visit Egypt again.

So, once more, time was of the essence. Having ensured that all my belongings had been packed and left with the concierge (I had to be back to the hotel by 2:00 p.m. at the latest), I set off from my hotel around 9:00 a.m., my resolve gaining new impetus with the added time constraint.

Again it was a very typical Egyptian day—blue skies, hot sunshine, and a cacophony of noise. There would be no taxi this time. My plan was to walk alongside the perimeter of the plateau, heading south until I was in line with the

apex location, and hope that I would find some opening in the perimeter security fence around that location.

Once again it would be a long and uncomfortable walk—several kilometers in the blazing sunshine. But at least this time by following the main road south, I would not feel so alone, with the occasional local Egyptian passing by, going about his or her everyday life. After about an hour following the perimeter security fence of the plateau, I was beginning to get the distinct impression that it was never going to end; it just kept going and going and going. This wasn't looking promising. Beyond the perimeter fence I could now see a part of the wall with manned security watchtowers stretching across the sand dunes (see figure 10.1). It seemed that the Egyptians authorities certainly took the security of the plateau very seriously indeed.

But I persevered. I knew that I could only walk on for about another hour, whereupon I would have no option but to turn around to make the two-hour walk back to my hotel, have a quick shower, and head for the airport. As each minute ticked passed and there was little sign of any clear opening in the security fence, I grew increasingly anxious. I just kept walking and looking, catching fleeting glimpses of the pyramids in the distance beyond great dunes of sand.

Figure 10.1. Security walls, fences, and towers around Giza

Soon I had reached my point of no return. Two hours and several kilometers had now passed, and still there was no gap to be found in the perimeter fence. I reckoned by now I was probably almost in line with the apex location, which would have been almost exactly due east of where I was standing; if only I could get myself inside the security fence, I would have been able to walk to my

destination in a matter of about five minutes or so.

But there was simply no opening to be found anywhere; this fence just went on and on for as far as the eye could see. But I walked on for about a minute more and, amazingly, came across a gate. My heart leaped with joy—only to be instantly crushed when I noticed the heavy chain and padlock that were securing it tightly shut.

Inside the security fence, about twenty yards beyond the security gate, I could see three local Egyptian men digging up a road. Things were becoming desperate now, and time was a commodity that had essentially run out. I thought that perhaps the men had a key to the gate and, with the help of some baksheesh, might be persuaded to open it and allow me entry. I tentatively called out to them. At first they ignored my calls, but as I persisted, one of them eventually came over.

I could barely speak a word of Arabic, so the only thing I could think of was to take out my small granite pyramid. When the man arrived I showed him the granite stone and pointed to the hill beyond where he was working. He smiled at me and shrugged his shoulders. He had no idea what I was meaning. Why would he? I grabbed a handful of dollars from my pocket and took hold of the chain and lock, shaking them and displaying the dollars. He seemed to get the message and kept smiling at me. He could either open the gate—or not. After some anxious moments of deliberation, he simply turned around and walked back to join his colleagues, leaving me utterly crushed and deflated.

Once again I was probably less than a few hundred yards from my destination, and once again I had been thwarted with security fences. It seemed peculiarly ironic that only a few days before I had stood in the Sphinx enclosure, one of the most secure and difficult-to-access sites in all Egypt, yet I could not find access to a barren, unremarkable part of the Egyptian desert. I stood for a minute or so simply gaping through the locked gate at the small hill in the distance—my goal. I looked down at my gift to Osiris—so near and yet so far. Disappointed and dejected, I returned the small pyramid stone to my backpack and, with a heavy heart, about-turned on the road, headed back to my hotel, to the airport, and home to Scotland.

Upon returning home I wrote about my experience on my Abovetopsecret.com web forum. I also wrote to Hawass, explaining the centroid theory and how the three pyramids “pointed” to a specific location to the southwest of the plateau and that this might be an area of interest worth excavating. You can imagine my

surprise when—only months after making this possible location public—this precise area of the Egyptian desert (an unremarkable area that had remained undisturbed probably since Egypt was formed millions of years ago) was now the site of a major excavation (see figures 10.2a–d).

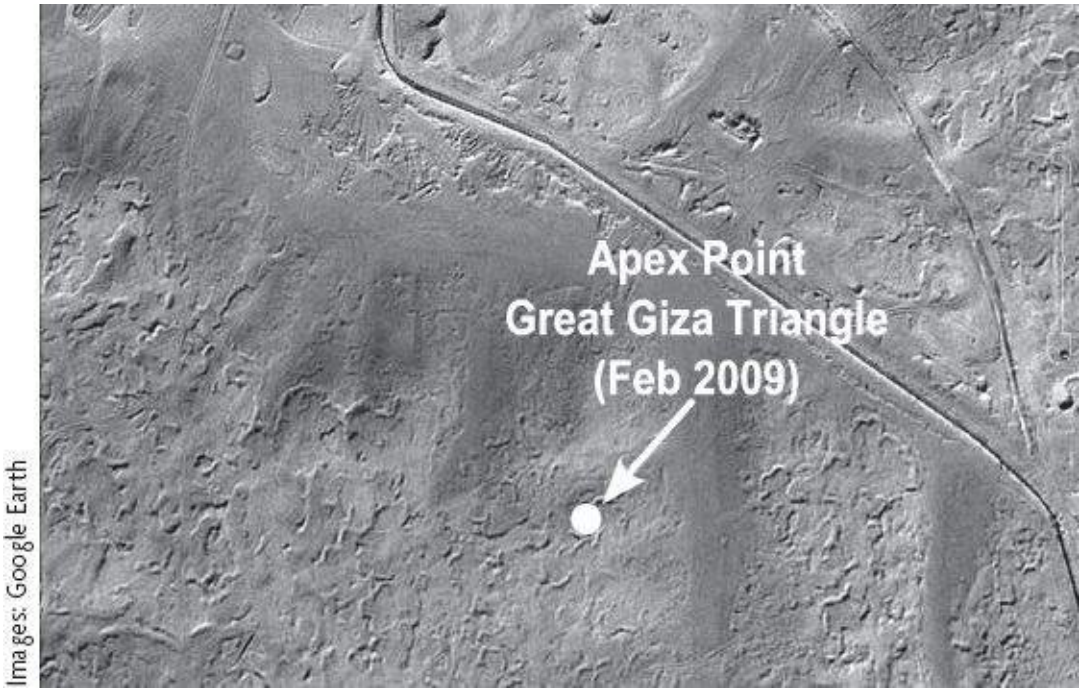

Figure 10.2a. The undisturbed Apex location of the Great Giza Triangle as of February 2009, before excavation begins.

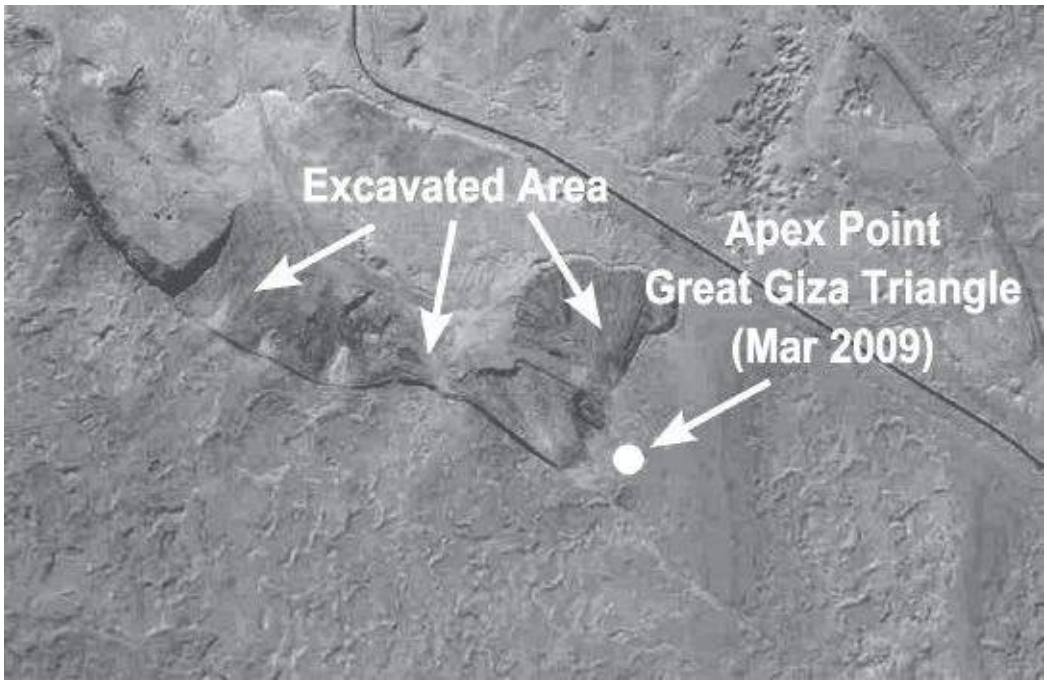

Figure 10.2b. Excavation of the Apex location begins in March 2009.

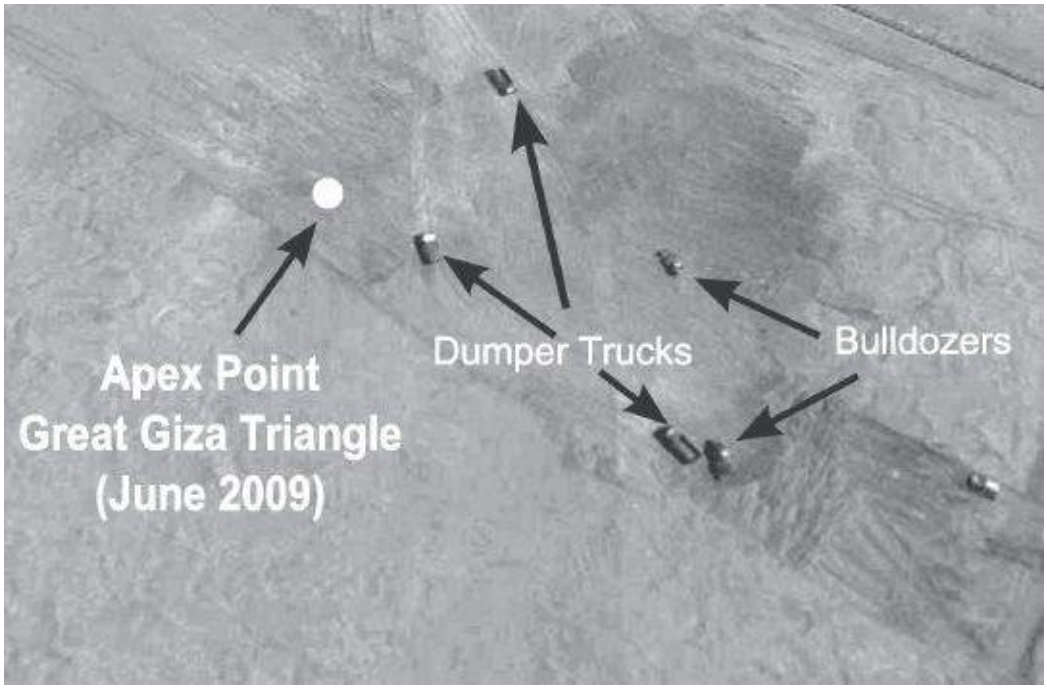

Figure 10.2c. Excavation around the Apex Point continues in June 2009.

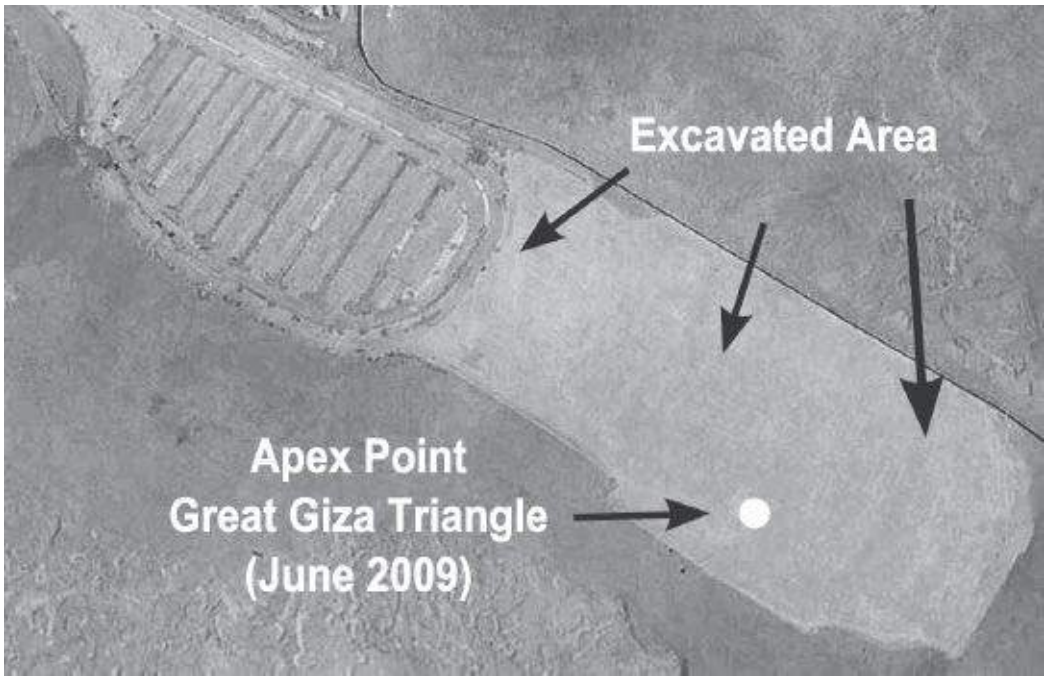

Figure 10.2d. Excavation around the Apex Point is completed, June 2009.

Having learned of this major excavation activity at the very location of the

apex point, I wrote to Hawass and asked if he knew the purpose of this digging. He did not reply. A short time after posting the images in figure 10.2 on the Official Graham Hancock Website (www.grahamhancock.com), a poster there, Dennis Payne, sent me some gamma-filtered images of the apex location, pointing out some underground features that appear fairly geometric in shape, like underground chambers of some kind (figure 10.3a–b).

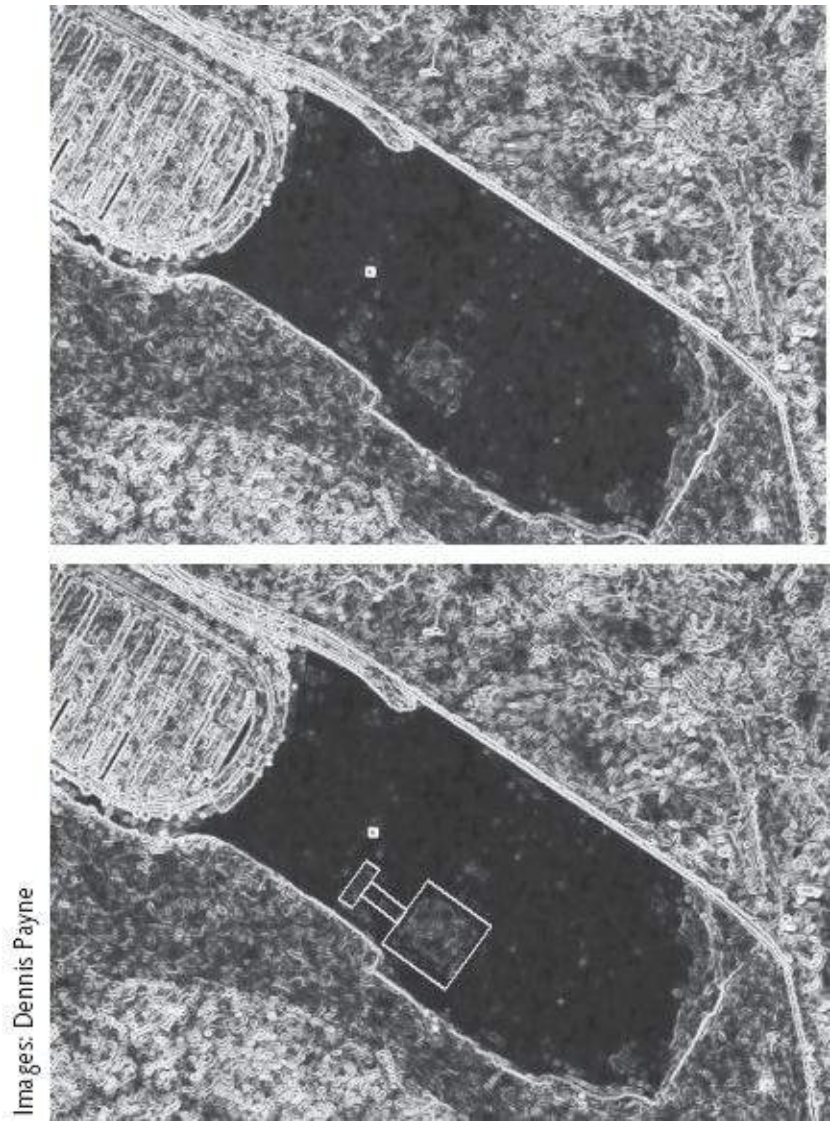

Figure 10.3a–b. Gamma-filtered images of the apex location show what appears to be a geometric formation beneath the surface.

What might the purpose of such intensive excavating in this area have been? Is

it but a mere coincidence that this area was majorly excavated only months after I had made Hawass aware of this location and had also published that information on Abovetopsecret.com and Graham Hancock's website, explaining why this area might be of great historical significance? Might this area really be the secret location of the legendary Chamber of Osiris? And might the Egyptian authorities have discovered the lost ark of the gods, the missing part of the "body" of Osiris?

Perhaps only time will tell.

HYMN TO OSIRIS

"Homage to thee, Osiris, Lord of eternity, King of the Gods, whose names are manifold, whose forms are holy, thou being of hidden form in the temples, whose Ka is holy. . . . Thou makest thy soul to be raised up. Thou art the Lord of the Great House in Khemenu. . . . Thy name is established in the mouths of men. Thou art the substance of Two Lands. Thou art Tem, the feeder of Kau, the Governor of the Companies of the gods. Thou art the beneficent Spirit among the spirits. The god of the Celestial Ocean draweth from thee his waters. Thou sendest forth the north wind at eventide, and breath from thy nostrils to the satisfaction of thy heart. Thy heart reneweth its youth. . . . The stars in the celestial heights are obedient unto thee, and the great doors of the sky open themselves before thee. Thou art he to whom praises are ascribed in the southern heaven, and thanks are given for thee in the northern heaven. The imperishable stars are under thy supervision, and the stars which never set are thy thrones."[2]

Footnotes

*1. “jmAt” is the transliteration from the original hieroglyphs. The word remains in its raw, transliterated form within this passage of text because Egyptology has not been able to interpret what this word actually means.

*2. The vowels represented in ancient Egyptian words such as *kh t* (*akhet*) are added by modern scholars purely for convenience. Theoretically the ancient Egyptian word we write as “akhet” might actually have been spoken by an ancient Egyptian as “ukhoti” or “eekhita” or some other variation. We have simply no way of really knowing what vowels were employed by the ancient Egyptians or how their words actually sounded, so modern scholars developed a fairly arbitrary convention to insert vowels into Egyptian script to facilitate its pronunciation.

*3. See Vyse, “Operations,” Vol. 1, 279, 285.

*4. It is quite possible to test ochre paint, because the binding agent used in ancient times would have been organic materials such as fish oil, honey, or gum.

†1. It should be noted here that we could crosscheck the orientations of only twenty-five of the twenty-eight facsimiles against Mr. Perring’s plan drawing because Mr. Hill had drawn some glyphs that Mr. Perring had missed and vice versa, and thus the orientations could not be compared. Also, the orientations of some of Mr. Hill’s drawings were compared against some fairly recent photos of the glyphs made by Colette Dowell and Robert Schoch, for which we were grateful.

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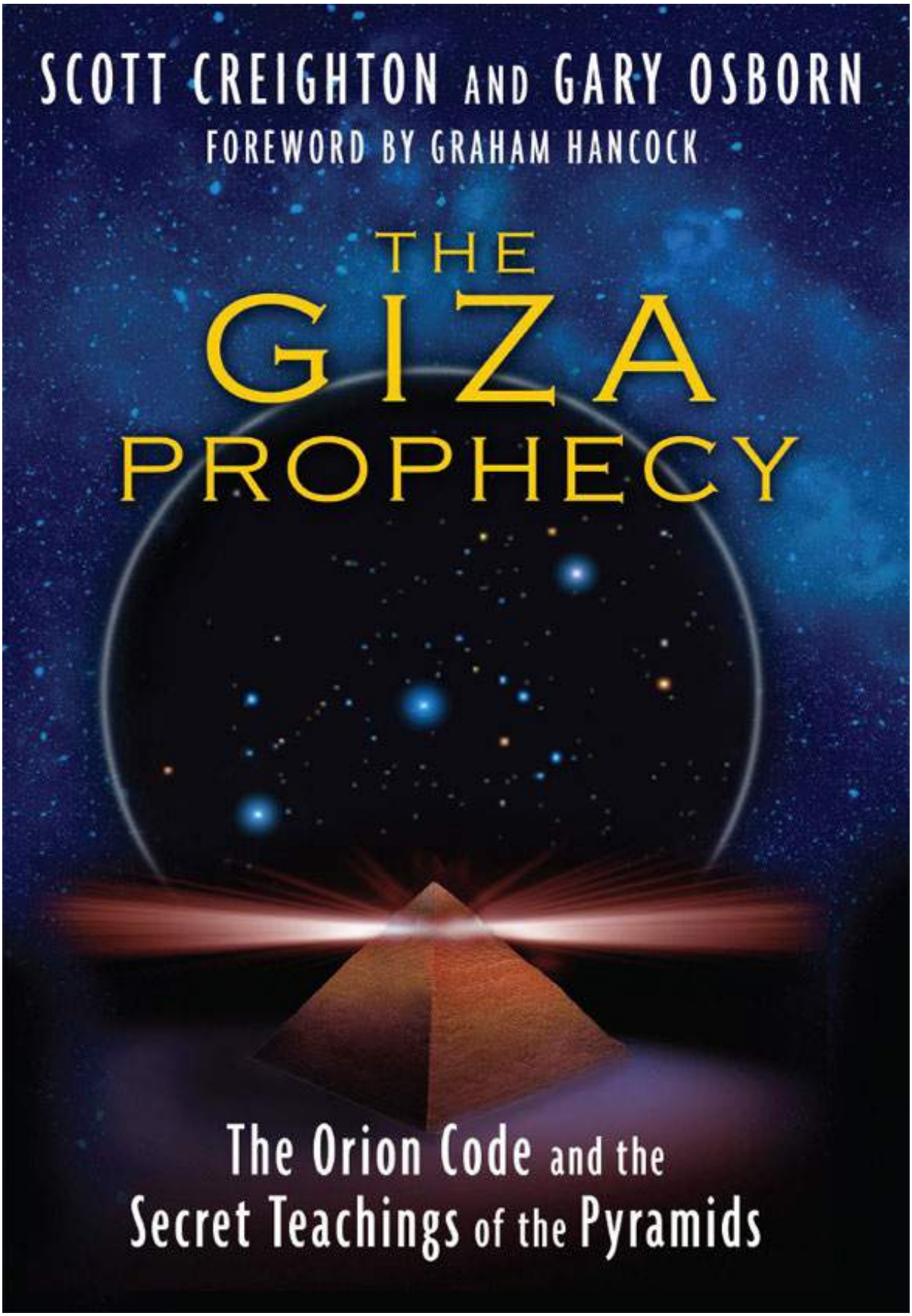
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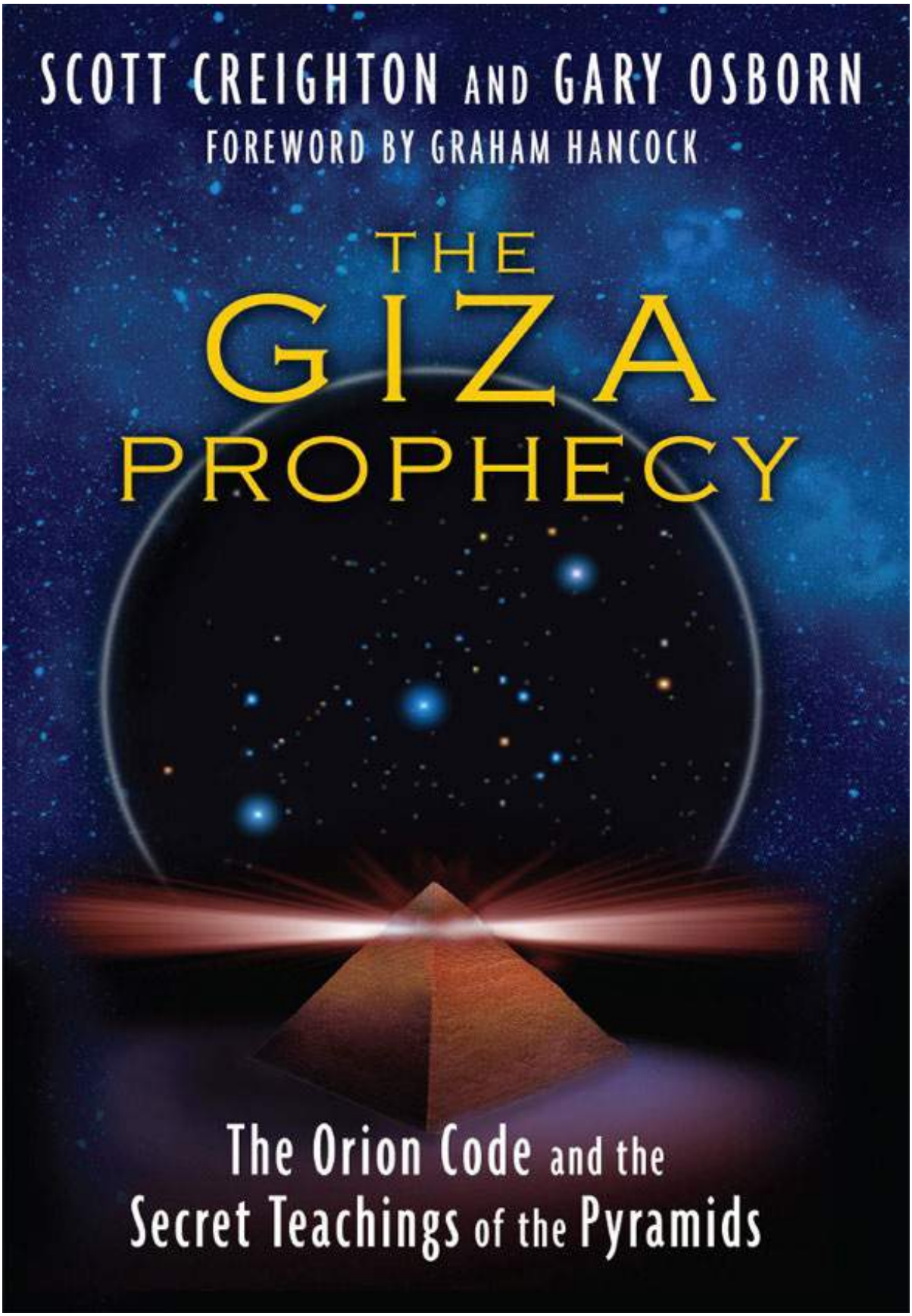
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The Orion Code and the Secret Teachings of the Pyramids

SCOTT CREIGHTON AND GARY OSBORN

Illustrated by Gary Osborn

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To my wife, Louise, for being there; and to my children, Jamie and Nina, for your marvelous questions.

SCOTT CREIGHTON

My contribution to this book is dedicated to the loving memory of my father, Eric Osborn (1935–2011).

GARY OSBORN

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FOREWORD

By Graham Hancock

There are thousands of books about the great pyramids of Egypt, and scores more are published every year, but it is rare—very rare!—for any of these new offerings to have anything new, useful, or important to add to what is already known.

The Giza Prophecy by Scott Creighton and Gary Osborn is a remarkable, standout exception to this general rule. It is new, it is useful, and above all it is important for the original light it sheds on the most fundamental and enduring pyramid mysteries of all. Who really built the three giant and enigmatic structures on the Giza plateau? When? And why? Is it possible, as many (myself included) have long suspected, that the advanced knowledge and purposes of a lost civilization were involved? Last but not least, could there be a continuing legacy, a hidden wisdom tradition connected to the pyramids with its roots in remotest antiquity and its branches still surviving, perhaps even still spreading, in the modern world?

Creighton and Osborn begin with the latter point. They show how the heliocentric model of the solar system, rejected, persecuted, and suppressed by the Christian Church from the time of Copernicus, was known and understood by secret groups of architects, stonemasons, and artists who encoded occult references to it in paintings, in sculptures, and in the most splendid churches and cathedrals of Christendom itself. Many of the references contain allusions, more or less direct, to the Great Pyramid of Giza and to the angle of Earth's rotational axis—concerns that lead us to the Freemasons, that notorious "society with secrets." Why does the Great Pyramid appear so often in Masonic symbolism? Why the Great Sphinx? Why the obelisk? And why are twin pillars—or obelisks

—so often evoked?

The Giza Prophecy presents convincing evidence that such symbols and devices are the surviving fingerprints of an ancient geodetic science that had calculated the true shape and dimensions of Earth, the angle of its axis, and its correct relationship to the sun, thousands of years before such facts were rediscovered by Copernicus.

Next the story moves to Giza, to the pyramids, to the heart of the matter, beginning with a complete and successful demolition of the theory of mainstream Egyptology that the pyramids are "tombs and tombs only." That theory is shown to be utter bunk—dogma, the work of minds that naturally shy away from mystery and from any new facts that might disturb the comfortable status quo. Creighton and Osborn provide a powerful antidote to a century and a half of Egyptological misdirection and leave us in no doubt that the pyramids were not built as tombs.

But if not tombs, then what are they? And once disconnected from the three pharaohs of the Fourth Dynasty—circa 2500 BCE—who Egyptologists want us to believe were the builders, then when were they built, by whom, and for what?

The answer, Creighton and Osborn show us, is to be found in the heavens.

First they pay proper homage to the outstanding work of my friend and colleague Robert Bauval, coauthor of The Orion Mystery with Adrian Gilbert, who shook the world of Egyptology in the 1990s by showing that the three Giza pyramids are laid out on the ground in the pattern of the three stars of the belt of the constellation of Orion. Bauval's Orion Correlation Theory, suggesting a grand unified plan for the Giza site, was rejected by Egyptologists wedded to the idea that each pyramid was built individually without reference to the others to

serve as the tomb of a specific pharaoh, but Creighton and Osborn show that the Orion correlation is very real. Building on Bauval's groundbreaking work, they not only reinforce the validity of the correlation but refine it even further, adding new dimensions to the discovery.

Of particular importance in this respect is their work on the six so-called Queens' Pyramids at Giza—three of which stand beside the pyramid conventionally attributed to Menkaure and three beside the Great Pyramid. Bauval had already shown that the Menkaure Queens' Pyramids reflect the pattern of the belt stars of Orion at setting, in the epoch of their "precessional minimum culmination." Creighton and Osborn address themselves to the other three Queens' Pyramids and show that they reflect the pattern of the belt stars at rising, in the epoch of their precessional maximum culmination. The two events—minimum and maximum culmination—are separated by some 13,000 years as a result of the precession of the axis of Earth (see chapter 3 for full details of this process). Minimum culmination happened in approximately 10,500 BCE, and maximum culmination will not be reached until 2500 CE. What we have on the ground at Giza, therefore, seems to be a time line coded in monumental architecture linked to regular laws of the heavens—and thus accessible to anyone with sufficient knowledge of the perceived cycles of the stars and the behavior of Earth within the solar system.

To identify a time line that starts in 10,500 BCE is not to insist that the pyramids were actually built at that remote date, and Creighton and Osborn do not insist on this. They do, however, present convincing evidence that the pyramids are indeed much older than the date of 2500 BCE presently attached to them by Egyptologists. In supporting their argument they once again deconstruct—perhaps demolish is a better word—the edifice of mainstream Egyptological theory. This is done partly on the basis of scientific facts that are already known (but not accepted) by Egyptologists—notably carbon dating of the mortar of the Great Pyramid, which shows it to be at least hundreds of years older than it should be if the orthodox theory is correct. And they also put forward compelling new evidence that the entire chronology of ancient Egypt as scholars presently conceive it may be radically out of joint. There could be as many as 2,000 years missing from the picture! If the authors are right about this, then it is

not difficult to see the mistake that has led Egyptologists to the artificially young date of 2500 BCE.

But if the pyramids are much older than they are supposed to be, and if they were not built as tombs by the three pharaohs who later appropriated and perhaps restored them in the Fourth Dynasty, then why were they built?

It is in the solid, thoroughly worked-out answers to this question—the why of the pyramids—that Creighton and Osborn make their most important contribution. They reveal an elegant and powerful hidden geometry built into key elements of the Great Pyramid that connects it unmistakably to an advanced, scientific, and Earth-measuring culture that must have flourished, as yet unrecognized by archaeology, at least as far back as the Neolithic. One of many spooky facts emerging from the geometry is that the Great Pyramid perfectly encodes its own exact position on Earth's surface. This achievement cannot be a coincidence and is far beyond the science of ancient Egypt as it is understood by Egyptologists.

The Great Pyramid points to something else as well—perhaps to the location of a hidden vault or archive at Giza, something that is hinted at in many ancient traditions. When you have followed the logic of The Giza Prophecy to its explosive conclusions, I suspect that you will be as convinced, and intrigued, as I am.

GRAHAM HANCOCK, born in Edinburgh, Scotland, is a British writer and journalist. His books, including Fingerprints of the Gods, The Sign and The Seal, and Heaven's Mirror, have sold more than five million copies worldwide and have been translated into twenty-seven languages. His public lectures and radio and television appearances have allowed his ideas to reach a vast audience, identifying him as an unconventional thinker who raises controversial questions about humanity's past.

INTRODUCTION

Even today the Orion Correlation Theory (OCT), proposed by Robert Bauval and published in the groundbreaking book The Orion Mystery (1994) with coauthor Adrian Gilbert, continues to be hotly debated in both academic and nonacademic circles.

The Giza Prophecy will present compelling new evidence offering substantive support to the OCT that allows us to more favorably consider the theory. Moreover, this book will demonstrate how every structure on the Giza plateau, including the Great Sphinx, appears to have been carefully and systematically laid out, how each component part interacts with every other part and, more importantly, why it was designed to do so. It is a unified plan that is remarkable in its simplicity, sublime in its economy, and truly breathtaking in its sheer ingenuity.

In addition, we will present evidence that has never before been seen, evidence that suggests an altogether different hand in the construction of these colossal ancient monuments and that there may indeed be—as bestselling writer and researcher Graham Hancock describes it—"a forgotten chapter" in the history of humanity.

When considering the pyramids of ancient Egypt (in particular the giant pyramids traditionally attributed to the Old Kingdom period, including Giza), Egyptologists, archaeologists, and other scientists and scholars have mostly concerned themselves with the practical problem of how these structures were built, being content with the notion that the why was pretty much self-evident—as pharaonic tombs or temples to the gods, revivification devices through which the ancient Egyptian kings could sail through the Duat, from whence they could transform into an Akh and ascend into the afterlife. However, as the pages of this

book unfold, the reader will discover that there is more—much, much more—to be added to the story of these most ancient of structures than conventional wisdom would ever have us accept or even allow us to consider.

What is important to understand about this book is that its purpose is not to enter into an orthodox-versus-revisionist debate; it does not in any way attempt to dismiss or to replace conventional understanding of ancient Egyptian cultural and religious ideas, but rather to present such ideas within a different narrative, with a different subtext. It is a subtext that beckons to us with even the most cursory of glances at the early giant pyramids of ancient Egypt and especially with regard to the monuments at Giza. The writers do not see these respective positions—though radically different—as being mutually exclusive.

The central hypothesis of this book will show—with meticulous evidence—that the first, giant pyramids of ancient Egypt may in fact belong to a much earlier age and that they were conceived and built as part of a long-term, homogeneous plan for a reason that was far removed from the funeral needs of a dead Egyptian king. It is a reason that—as we shall see throughout the course of this book—may be pertinent even to our civilization here in the twenty-first century.

In short, the core aim of this work is to demonstrate, through close scrutiny of the extant evidence, that there is a whole lot more going on at the Giza plateau than anyone has ever before dared consider. Specifically, this book will demonstrate additional concordances between the Giza pyramids and the Orion’s Belt stars that have hitherto gone unnoticed, information that has quite profound implications.

We will further show, through exhaustive analysis, how the Great Pyramid of Giza holds a remarkable message relating to a dramatic Earth event in our ancient past, an event that is recorded in some of our most ancient archaeological sites and sacred texts.

Most important of all, however, this book will reveal the reason why this connection between the Giza pyramids and the Orion constellation was made and, crucially, why it may remain vitally relevant even to our present time and in the millennia to come. It is a discovery that is as provocative in its nature as it is controversial in its implications and one that may well fuel the arguments over Earth's prehistory for many years.

It is the Giza Prophecy.

A Note on Approximate Dates

When discussing the dates of precession and other relevant astronomical phenomena, we use approximations (“ca.”) for these events. We present our data this way because different astronomical programs use slightly different algorithms to determine dates, thus giving slightly different results. Also, a fraction of a degree difference could represent several hundreds of years. We also have to factor in the possibility of human error in the alignments made by the ancient builders; did they get it bang on or is their alignment off by a fraction of a degree? Also, the rate of precessional motion is not uniform across its cycle (it is presently accelerating), which will also impact the accuracy of dates achieved. And most certain of all, no modern star-projecting software remotely considers that there was an axial shift as recently as ca. 2630 BCE, and we certainly have little idea of the orbital dynamics of Earth prior to that event.

1

THE AXIS AND THE HERETIC

It had been a long journey—a little over twenty-three days. In its own way it had been a pleasant journey, each and every horse-drawn, bone-jarring bit of it, colored with the sublime splendor of the ever-changing Florentine countryside. Spring was near. For as long as he could remember in his seventy years, it had been his favorite season—the time of renewal, of rebirth. New life.

As his carriage finally reached the city gates and trundled through the cobblestone streets of Rome, the old man caught sight of the great Coliseum where, in ancient times, gladiator had once fought gladiator to the death. How fitting, the old man quietly mused to himself. For he knew only too well that the battle that lay ahead was comparable in most every way to the battles of the gladiators of old, that he too was about to face no less a struggle. It would be a clash whereby, should he not emerge victorious, he could be put to death.

And what lay at stake in this coming battle could not have been more important. It was nothing less than the future of science and the age of reason and, ultimately, the very future of humankind itself. The old man's only concern now was that the confrontation he had so long sought to avoid had finally arrived and that it had come at so late a point in his long life.

As he cast his weary eyes to the marvelous sight of the grand obelisk standing tall in the heart of Saint Peter's Square, he afforded himself a wry smile. If only they knew! But the deep sense of trepidation and dread was never far from his

troubled mind, a sense of hopelessness that seeped into his very soul, making him wonder how he would ever have the strength to see this battle through, to vanquish his many and powerful opponents.

The year was 1633 CE, and the elderly and sickly Galileo Galilei, having been summoned to present himself to the Holy Office of the Inquisition, was forced to make the 200-mile journey from his home in Pisa to Rome to face his accusers. His “crime” had been in writing, publishing, and distributing his book Dialogue Concerning the Two Chief World Systems, in which he—according to and in apparent defiance of his accusers—openly supported and promoted the heretical heliocentric ideas of the Polish astronomer-priest Nicolaus Copernicus. It would be a battle of ideologies, a battle in which a man of science and reason would finally lock horns with the upholders of religious dogma and superstition, in which the radical and enlightened ideas of science would challenge the hidebound status quo and the almighty power of the Catholic and Apostolic Church.

The Copernican model of the universe had been in existence for around a hundred years before the time of Galileo. In the Copernican view of the solar system, the sun was situated at the center, not Earth. This view, of course, contradicted that of the church, which regarded a motionless Earth as being situated at the center of the universe, encircled by the sun and all the stars and planets fixed on various rotating celestial spheres. As such, the Copernican heliocentric view whereby Earth (and other planets) rotated on an axis and went around the sun to explain the observed changes in the heavens was regarded by the all-powerful church as a false doctrine, a heresy, and those found supporting such an idea could ultimately find themselves paying for such heretical notions with their lives.

Unfortunately, however, the fate of Galileo and his work of science had already been decided even before the old man had embarked on his long journey to Rome. Not even the great invention of Galileo’s telescope, a magnificent instrument of genius through which the wondrous motions of the heavens could

actually be observed, could convince his detractors of his argument. In the end it was explained to Galileo that he had to recant his own Copernican writings (his life's work) and endorse the Ptolemaic view held by the church, which was apparently supported by Holy Scripture—or pay the ultimate price.

After two months of prolonged argument and counterargument, of browbeating and intimidation, the old man's spirit was finally broken. In a white shirt of penitence, Galileo knelt before the ten cardinals of the Inquisition and capitulated, denouncing his life's work with these words:

I, Galileo, son of the late Vincenzo Galilei, Florentine, aged seventy years, arraigned personally before this tribunal, and kneeling before you, Most Eminent and Reverend Lord Cardinals, Inquisitors-General against heretical depravity throughout the entire Christian commonwealth, having before my eyes and touching with my hands, the Holy Gospels, swear that I have always believed, do believe, and by God's help will in the future believe, all that is held, preached, and taught by the Holy Catholic and Apostolic Church. But whereas—after an injunction had been judicially intimated to me by this Holy Office, to the effect that I must altogether abandon the false opinion that the sun is the center of the world and immovable, and that the earth is not the center of the world, and moves, and that I must not hold, defend, or teach in any way whatsoever, verbally or in writing, the said false doctrine, and after it had been notified to me that the said doctrine was contrary to Holy Scripture—I wrote and printed a book in which I discuss this new doctrine already condemned, and adduce arguments of great cogency in its favor, without presenting any solution of these, and for this reason I have been pronounced by the Holy Office to be vehemently suspected of heresy, that is to say, of having held and believed that the Sun is the center of the world and immovable, and that the earth is not the center and moves:

Therefore, desiring to remove from the minds of your Eminences, and of all faithful Christians, this vehement suspicion, justly conceived against me, with sincere heart and unfeigned faith I abjure, curse, and detest the aforesaid errors

and heresies, and generally every other error, heresy, and sect whatsoever contrary to the said Holy Church, and I swear that in the future I will never again say or assert, verbally or in writing, anything that might furnish occasion for a similar suspicion regarding me; but that should I know any heretic, or person suspected of heresy, I will denounce him to this Holy Office, or to the Inquisitor or Ordinary of the place where I may be. Further, I swear and promise to fulfill and observe in their integrity all penances that have been, or that shall be, imposed upon me by this Holy Office. And, in the event of my contravening, (which God forbid) any of these my promises and oaths, I submit myself to all the pains and penalties imposed and promulgated in the sacred canons and other constitutions, general and particular, against such delinquents. So help me God, and these His Holy Gospels, which I touch with my hands.

I, the said Galileo Galilei, have abjured, sworn, promised, and bound myself as above; and in witness of the truth thereof I have with my own hand subscribed the present document of my abjuration, and recited it word for word at Rome, in the Convent of Minerva, this twenty-second day of June, 1633.

I, Galileo Galilei, have abjured as above with my own hand.[1]

And so it was with these fateful words that the leading light of the Italian Renaissance was finally extinguished. Galileo's life was spared, but he was nevertheless sentenced by the Inquisition to spend the rest of his days—a further nine years—under house arrest. For the rest of the world, this setback to the age of reason and of experimental science was profound and would have deep ramifications. The Ptolemaic views of the church with regard to the heavens and their motions were once again assured and would prevail for the next 200 years. The message from the all-powerful church was clear: if you valued your life and freedom, you would stick to the Holy Scriptures and only the Holy Scriptures.

To the men of reason and science of this period who valued their lives, then, openly challenging the church with "scientific truths" simply had to be avoided.

Indeed, the religious persecutions made by the church, which increased between the fifteenth and sixteenth centuries, witnessed the trial and execution of philosopher Giordano Bruno in Rome in 1600, who was burned at the stake for publicly spreading his own “infinite” cosmology of the universe and his own mixed brand of Neoplatonism and Renaissance Hermetical science.

The execution of Bruno sent a shock wave through Europe. . . . The message from the church was abundantly clear: heretics will not be tolerated. And, of course, the natural outcome of such a climate, in which the pursuit of “heretical knowledge” might ultimately cost you your life, was to force people of reason and science underground and into “invisible colleges,” where such knowledge could be pursued, preserved, and secretly passed on.

It is hardly surprising, then, that around this time we find two groups of quite different people banding together to ensure, in their own different ways, that the paradigm-shifting discoveries of Copernicus, Galileo, and Kepler were kept alive, preserved in plain sight right under the noses of the church.

The Earth's Axis in Masonic Symbology

As described above, the prevailing stance espoused by the church in the time of Galileo was the Ptolemaic view that Earth was perfectly still and that all heavenly bodies rotated around Earth, these heavenly bodies being fixed on a series of rotating celestial spheres. Furthermore, since it was believed by the church that Earth did not rotate, then it logically followed that it would have no axis (of rotation). It would therefore have seemed perfectly correct for the church to further conclude that Earth (with no rotational axis) must be sitting perfectly upright at the center of the universe—God's perfection.

And so, much like the Cross is a religious symbol to Christians of the death and resurrection of Christ, to the adherents of science, the 23.5° angle of Earth's rotational axis (in whatever form it may have been expressed) would lend itself as a potent yet ever-so-subtle symbol or sign of the truth of the rotating Earth, of the heliocentric universe, a symbol to those who believed in science and reason and a sign—as we shall see—that would be used time and time again by the heliocentric challengers to the outdated and flawed ideas of the church. In short, it could be said that while the Cross became a symbol of Christianity and religious belief, the angle of Earth's tilt (by whatever means the angle was expressed) may have been adopted as the symbol of science and reason and free thought.

And it is probably no coincidence that it was around this time that Freemasonry is thought to have first taken root, although, it has to be said, rumors and myths persist even to this day that Freemasonry was but a continuation of a much older secret society, the Order of the Knights Templar. It is believed, however, that the Knights Templar were dissolved in the early fourteenth century after a papal bull effectively subjected them to religious persecution throughout continental Europe, an instruction from the church that saw hundreds, if not thousands, of the order—including its last leader, Jacques de Molay—put to death on the same

day, Friday the 13th, Black Friday.

There are, however, some traditions in Scotland which insist that a substantial contingent of Knights Templar managed to flee the church's persecution, making their way by ship from the port of La Rochelle in France across the sea to Scotland, one of the few kingdoms at that time that was not under the influence of the papal bull, since its leader, Robert the Bruce, King of Scots, had already been excommunicated by the pope some years earlier. Indeed, folklore surrounding the Scots' decisive battle of independence with England during this troublesome period maintains that these Knights Templar—arguably the most feared fighting force in all Christendom—arrived in Scotland, joined Bruce's forces at Bannockburn, and, in spite of the overwhelming numbers of the English army of Edward II, helped turn the tide of this pivotal battle in the Scots' favor.

Of course, the politics of the fourteenth century could never have allowed the King of Scots to ever admit that the heretical Knights Templar had been given sanctuary in Scotland, since Bruce, after all, desired to make amends with the church. It made sense, then, that the Knights Templar remained out of view in Scotland, a secret society.

For their military services, it seems that Bruce awarded the Knights Templar—sometimes referred to as the Knights of the Black and White (a reference perhaps to the black-and-white banners flown by the Templars as they went into battle)—the lands of Temple, Knightswood, and Jordanhill around Glasgow in the west of Scotland, with further lands at Temple in Midlothian near the world-famous Rosslyn Chapel, a mid-fifteenth-century building that some claim abounds with Freemasonic symbology, apparently applied long before the Order (or "Craft") of Freemasons was ever supposed to have been officially formed.

Traditions further suggest that the Knights Templar, in turn, may have been the inheritors of a more ancient Order from the very earliest times, even as far back

as the construction of Solomon's Temple and even the Great Pyramids of ancient Egypt. Of such an ancient connection between modern Freemasonry, the Knights Templar, and the land of the pharaohs, Freemasons and authors Christopher Knight and Robert Lomas tell us:

We had detected that the security of the whole state depended on the two kingdoms [Upper Egypt and Lower Egypt] working together and this co-operation was symbolized by two pillars, one in the north and one in the south, united by a heavenly crossbeam forming a doorway facing the rising sun. This powerful concept of strength through the unity of two pillars is still a central theme of Masonic ritual and was a theme with which we felt very familiar.

This was not the only link we had found with modern Freemasonry [and ancient Egypt]; the concept of Ma'at, meaning righteousness, truth, and justice within a level and ordered symmetrical scheme, summed up the principles we had learned as Freemasons. This humanistic, ethical code was not a religious commandment, neither was it a legal requirement—it was goodness given for its own sake.

We knew that Freemasonry could not have copied this idea from Egyptian history because the concept of Ma'at, long lost to the world, remained so until the decoding of the Rosetta Stone [by Champollion in 1822]. This stone, which opened the way to translating the hitherto incomprehensible Egyptian hieroglyphics, was not found until nearly a hundred years after the foundation of the Grand Lodge of England. . . .

While investigating the king-making ceremony we had found that although the funerary liturgy itself was not recorded, it involved a resurrection ritual which identified the dead king with Osiris. We also found evidence that suggested that similar ceremonies were much more widely used than just at the making of a king and that they seemed to involve a secret society. The evidence for this secret society we found in translations of inscriptions on artifacts in Cairo Museum—texts which again could not have been translated prior to the

discovery of the Rosetta Stone, which happened long after Freemasonry had publicly announced itself.

With the added insight of our Masonic training we had been able to attempt a reconstruction of the Egyptian king-making ceremony which fitted all the known facts.

The most exciting link with the Masonic Third Degree came from references in the Pyramid Texts to the king representing the morning star, which had been such an important part of our own Masonic raising ceremonies. The Egyptian hieroglyphic for the morning or divine star was the same five-pointed star used to represent the five points of fellowship of the Masonic Third Degree.[2]

It would appear, then, that there is a significant body of circumstantial evidence to support the view that although modern Freemasonry appeared only in relatively recent times, it may indeed have been founded on a much more ancient Order, a Craft stretching far back into great antiquity, a hidden Order that passed on its secrets of science and the universe from generation to generation over hundreds and possibly even thousands of years. And we note here also that it may be no coincidence that the black-and-white checkerboard—a prevalent symbol of modern Freemasonry—may in some way allude to the black-and-white banners flown by the Templars.

In this regard, we are reminded of the words of author Frank C. Higgins, a Thirty-Second-Degree Freemason.

Far and away the most ancient of all Masonic symbols is the keystone. . . . In the keystone . . . we have a figure which is of importance today after having retained an identical significance for at least six or seven thousand years that adepts in the cosmic mysteries have been wearing miniature Keystones as a sign of their

proficiency. Few Masons associate the keystone with any other consideration than that of being the essential element to the construction of an arch, as employed in building. A great deal of Masonic speculation has been indulged in concerning it, the assumption generally being that as the sky seems to be an arch, that the meridian sun seemed to be the essential architectural detail.[3]

The “identical significance” of these keystones goes back further than “six or seven thousand years”? This particular statement from this eminent Freemason is very interesting indeed to our investigation, since the same geometric principle expressed in these 7,000-year-old ancient keystones, which, according to Higgins, are based on the axial inclination of Earth to the sun (i.e., the varying uniform side angles of 11.75°, 23.5°, and the precessional diameter of 47°), appears to have also been employed in the construction of the Great Pyramid, as we will demonstrate later.

One of the stated objectives of Freemasonry is the pursuit of knowledge, or “gnosis.” A new Fellowcraft (fellow of the Craft) is instructed by the Master of the Lodge in the Second Degree of Freemasonry as follows:

Brethren, before opening the Lodge in the Second Degree let us supplicate the Grand Geometrician of the Universe, that the rays of Heaven may shed their benign influence over us, to enlighten us in the ways of nature and science. . . . In the former degree [First Degree] you had the opportunity of making yourself acquainted with the principles of moral truth and virtue, you are now permitted to extend your researches into the more hidden ways of nature and science.[4]

Now, the Freemasons are not a secret society; we know much about them and much of what they do. It is, however, probably fair to say that they are a society with secrets. However, as we mentioned earlier, given the climate of scientific intolerance into which modern Freemasonry was supposedly born, the desire to keep their scientific knowledge secret is hardly surprising. Their secrets or “heretical knowledge” had to be hidden from the scrutiny of the church. But this

“scientific prohibition” did not prevent the Freemasons from propagating their scientific ideas, even under the watchful eye of the church. The great churches, abbeys, and cathedrals—built by the labor of masons—all contain in their arched windows or in their high vaulted ceilings the “secret science” of the Masons, for the key to the success of these great arches and vaulted ceilings was—as mentioned briefly above—the Masons’ “keystone.” Of this vital stone, Frank C. Higgins further informs us:

The actual angle defined by the lateral sides of the “Masonic” Keystone is 23½°, or the axial inclination of the earth to the sun, and its characteristic internal triangles are the same as constitute the vertical section of the Great Pyramid of Gizeh.[5]

So here we find that the great religious structures of the Renaissance age were being built (by masons) to incorporate the most potent symbol of heretical knowledge—the Masonic keystone, bearing sides of 11.75° and 23.5°—symbolizing Earth’s rotational axis, which, in turn, alludes to the Copernican heliocentric universe (figure 1.1). In this way the heretical knowledge was being cleverly preserved in the very places the church would least expect to find it—within its own churches, abbeys, and cathedrals. The scientific truth of the heliocentric universe hidden in plain sight.

Of course, this is but one example of how the Freemasons and other men of science and reason would preserve the scientific truths of Copernicus and Galileo through the use of this 23.5° sign. There were many others. Arguably the most significant of these is the Great Seal of the United States of America, a symbol printed on every U.S. one-dollar bill (figure 1.2). And it has to be said here, the Great Seal of the United States (as with any important symbol of state) is not a composition that one would expect to consist of purely random components. Each element within such a seal would be loaded with meaning and knowledge, albeit presented in symbolic form.

Of even more interest to our research here is the Masonic Emblem of Lodge Number 78 (figure 1.3), which shows a pyramid angled at 23.5°, but with the image of the Great Sphinx included in the emblem—a fairly clear reference, one would have thought, to the Great Pyramids at Giza.

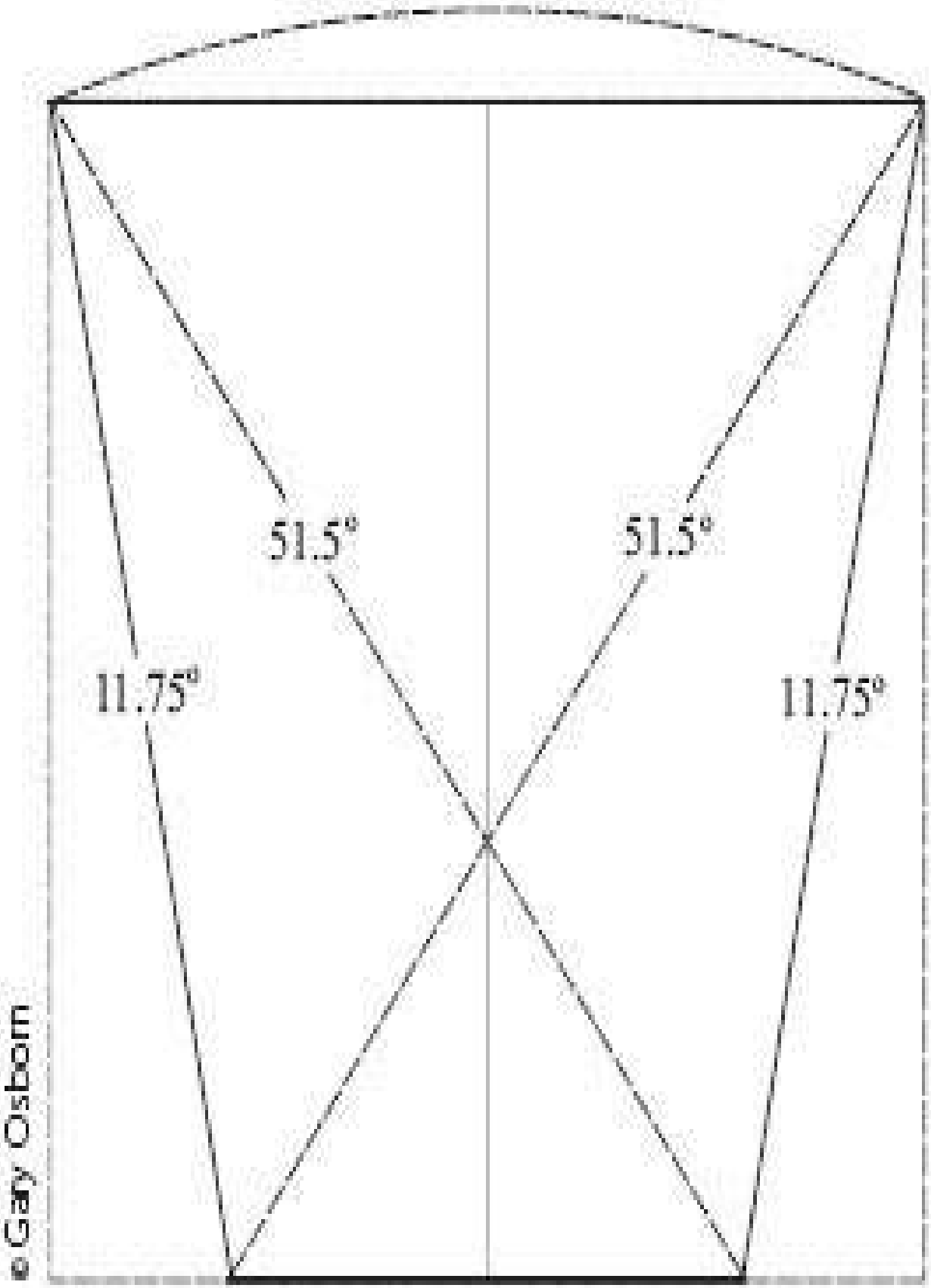

51.5°
51.5°
11.75°
11.75°
© Gary Osborn

Figure 1.1. The Masonic keystone. Its lateral sides of 11.75° reflect the 23.5° angles of Earth's rotational axis (otherwise known as its obliquity; 2 x 11.75° = 23.5°). Notice how the keystone is formed from a perfect square.

23.5°

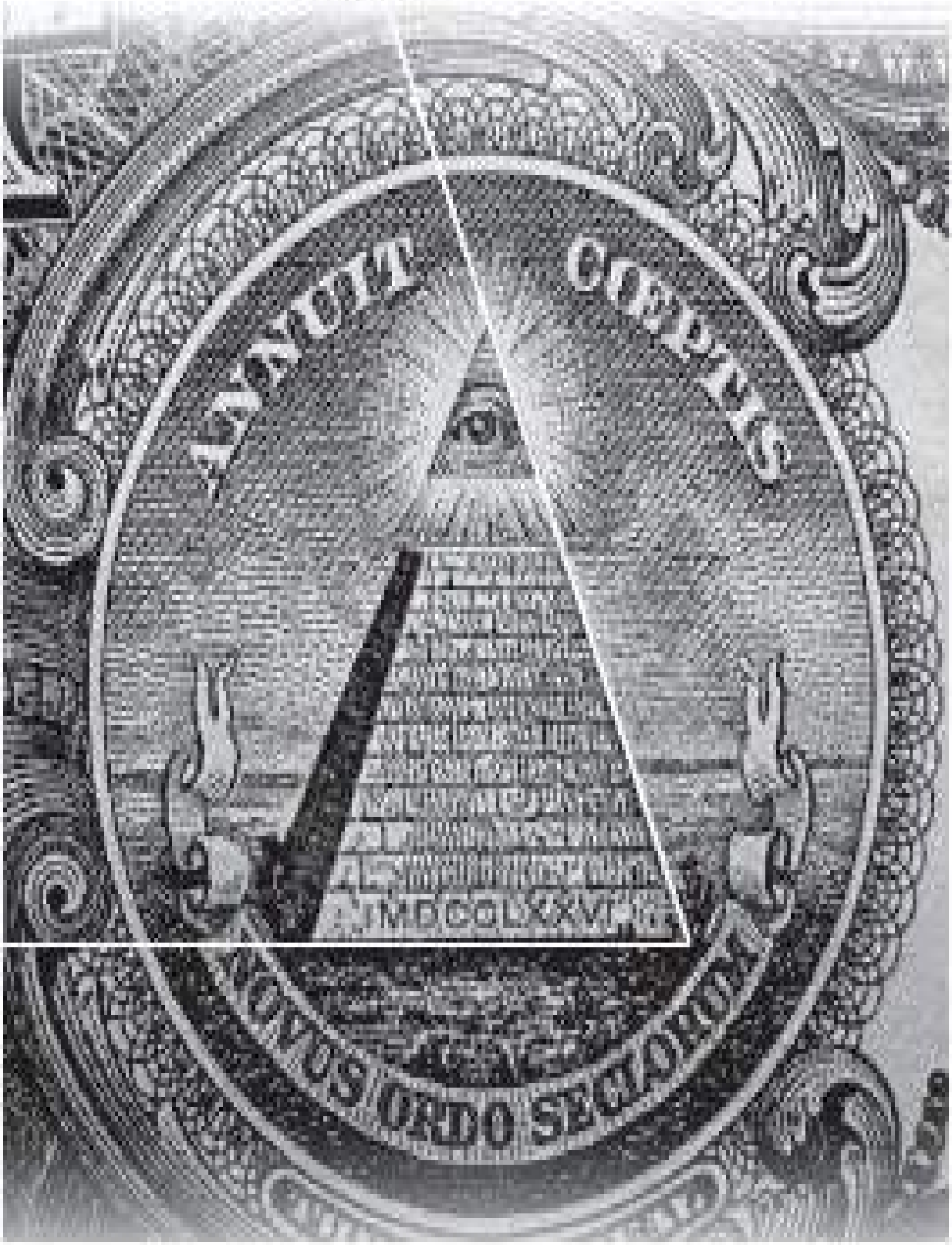


Figure 1.2. Pyramid and capstone angled at 23.5° on the Great Seal of the United States of America.

23.5°

Figure 1.3. The Masonic Emblem from Lodge Number 78 in London (date unknown). The Latin inscription, SVA SIDERA NORVNT translates as "His own constellations have acknowledged him," in reference to the Masonic concept of the "Grand Architect," God. This image was used for the reverse side of a silver medal now in the British Museum (ca. 1742). We are told this medal was created on special command by the pope to commemorate the visit to Rome by the English Antiquary Martin Folkes in 1733, whose bust is featured on the obverse. Folkes was appointed a member of the Royal Society by its president, Sir Isaac Newton, in 1716. Folkes was also a Freemason and a member of the Lodges in London and Norwich, which would explain why this image was used as the Masonic Emblem for the London Lodge.

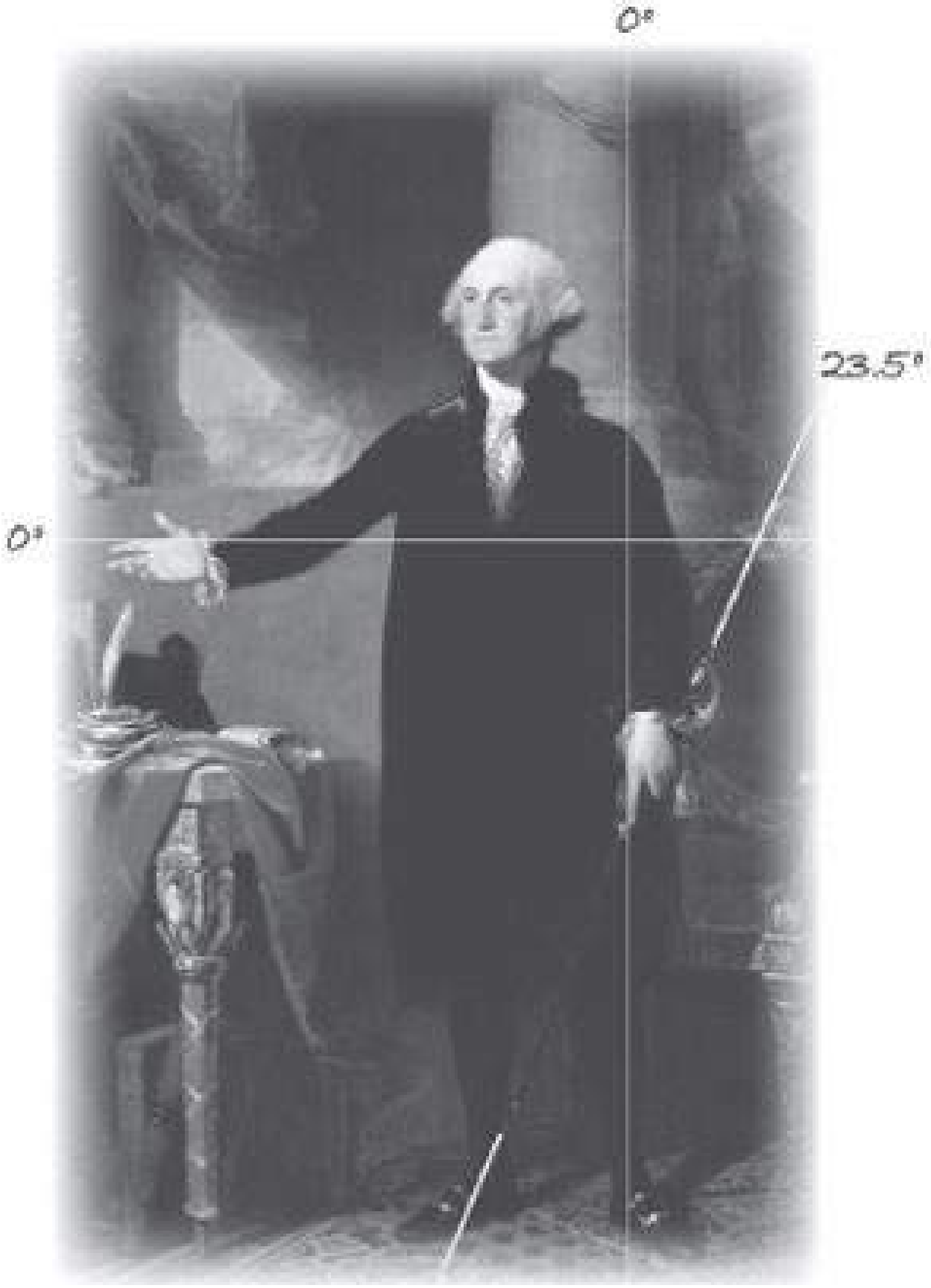

0°
23.5°
0°

Figure 1.4. Portrait of George Washington by Gilbert Stuart (1796). Notice how Washington's sword is tilted at an angle of 23.5°.

What is particularly curious to our investigation here are the comments of Freemason Frank C. Higgins with regard to the Great Pyramid at Giza and the angle of 23.5°, and the fact that we find the slope of the pyramid on the Great Seal of the United States slanted at this very same angle—another example of scientific ideas about the heliocentric universe being hidden in plain sight. Of course, this would seem to suggest a link between the Great Pyramid at Giza and Earth's rotational axis, and we will consider this somewhat curious connection more fully later in this book.

The words of the Freemason's Second Degree teachings (on page 13) may at first seem somewhat allegorical and vague, but if one reads between the lines and connects the dots, there might in fact be real wisdom to be obtained from the subtext of this particular passage, once again, wisdom we find associated with the angle of Earth's rotational axis and the heliocentric universe/solar system.

The rays of Heaven may . . . enlighten us in the ways of nature and science.

One could be forgiven for thinking that this statement refers to nothing more than an esoteric notion of enlightenment through the power of the sun or the sun's creator. But, as stated, there might actually be much more substance to this enigmatic statement than initially meets the eye.

It is a fact that another of Freemasonry's great symbols is the obelisk, a tall stone pillar capped with a small pyramid or capstone known as a pyramidion or benben. We find these large stone pillars in most major capital cities of the

world, including the 555-foot-tall obelisk in Washington, D.C., placed there to honor America's founding president, George Washington, who happened also to be a Freemason. It is also a fact that many of the obelisks around the world originally came from Egypt and were said by the ancient Egyptians to embody the spirit of their sun-god, Ra (or Re). And we note also at this point that the twin pillars (Joachim and Boaz) are also a strong, recurrent theme in Masonic symbolism; as we dig deeper, we discover that they can be shown to have possible (if not probable) roots in science.

What we have here, then, is the ancient Egyptians telling us that the obelisk—an important structure to Freemasonry—was to the Egyptians related in some way to their sun-god. And then we have modern Freemasons stating in their Second Degree teachings, "The rays of Heaven [i.e., the sun's rays] may . . . enlighten us in the ways of nature and science."

But how might the sun's rays do that? one is inclined to ask. Well, is it simply a coincidence that to determine the angle of Earth's rotational axis (its obliquity) you need two things—the sun and a pole or pole-shaped object, such as an obelisk? It is a scientific technique so simple a child could do it. Here is how it works.

After placing your obelisk perfectly vertical on the ground (this can be achieved with the use of a simple plumb bob) you record the positions of the shadows cast by the obelisk on the summer and winter solstices, whereby the summer solstice will produce the shortest shadow and the winter solstice will produce the longest shadow (by virtue of the sun being lower in the sky in the winter months). When these two positions are recorded, determining the angle of Earth's rotational axis —its angle of obliquity—is simply a matter of some very basic geometry (figure 1.5).

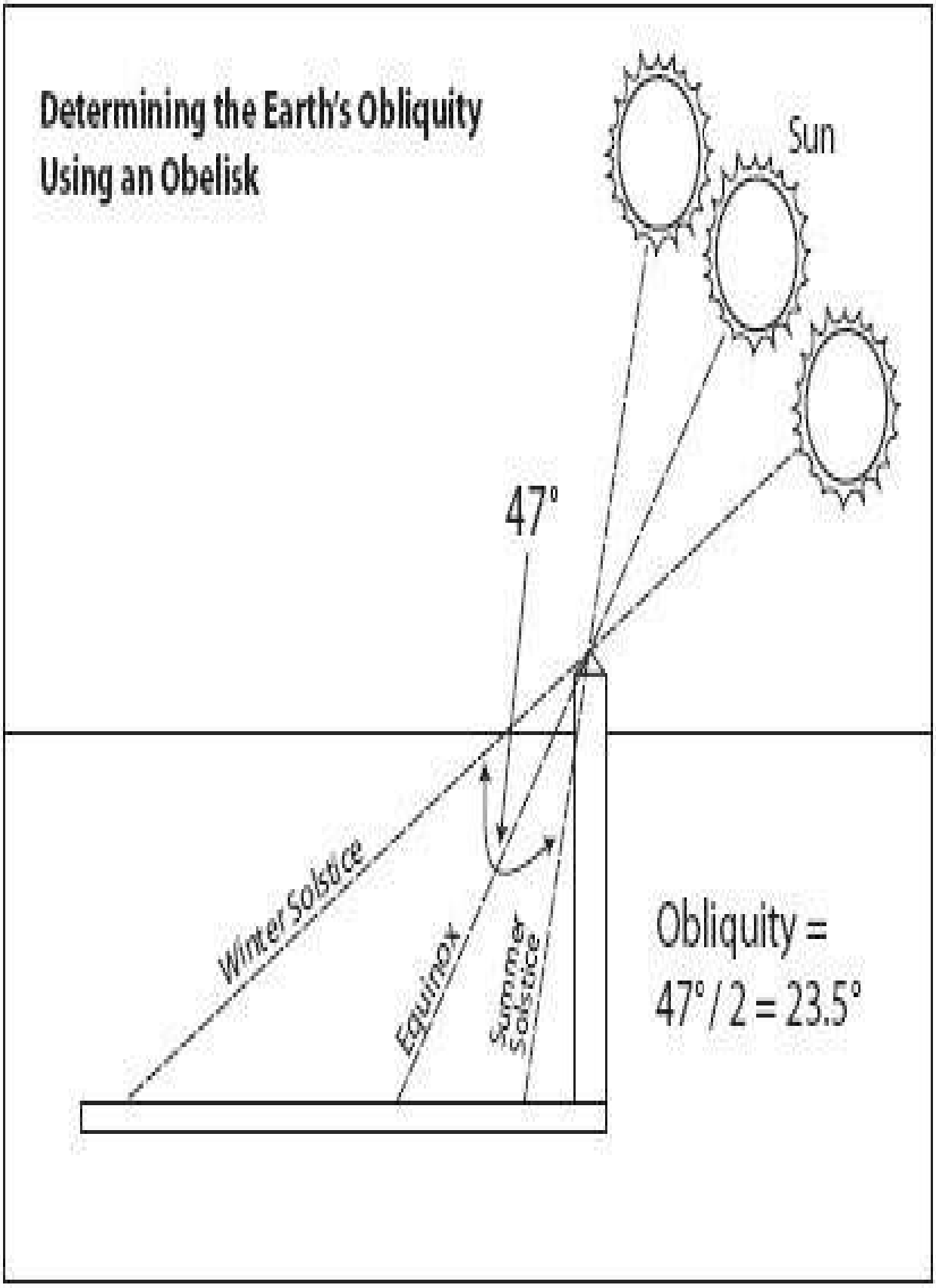

Determining the Earth's Obliquity
Using an Obelisk
Sun
47°
Winter Solstice
Equinox
Summer Solstice
Obliquity =
47° / 2 = 23.5°

Figure 1.5. Determining the angle of Earth's rotational axis (obliquity) using the sun and an obelisk

With one obelisk we can easily determine the angle of Earth's rotational axis, but with two such pillars (Joachim and Boaz) located hundreds of miles apart—one in the south of the country and one in the north—we can easily determine from the two sets of results (and some very simple mathematics) the precise circumference of Earth, a discovery supposedly first made by Eratosthenes of Cyrene (Libya) around 240 BCE. Two obelisks are also essential to create stellar alignments in order to mark a specific moment in precessional time—something we will be considering later in this book.

Confirmation of the use of such a simple technique in ancient times comes again from Freemason Frank C. Higgins.

We have historical authority for this "theory of shadows," as it is called, having been applied in Egypt at a much later period by a celebrated philosopher named Eratosthenes, who lived between B.C. 270 and 196, and was the librarian of the world famous "Museum" of Alexandria. The legend is to the effect that Eratosthenes, who was a native of Syene, the modern Assouan, near the great dam of the Nile and the island temple of Philae, attempted an exact measurement of the magnitude of the earth, and that the measure he adopted was the same as astronomers have used ever since. He had observed that in his native city of Syene, in southern Egypt, vertical bodies at the same time of the summer solstice cast no shadows at noon, or in other words that the sun was at this time exactly overhead at Syene.

Now Eratosthenes measured at Alexandria the length of the shadow cast by the gnomon [obelisk, pillar] at midday on the summer solstice at the very moment when he supposed the sun to be vertical at Syene. The angle was found by

Eratosthenes to be included by one-fiftieth part of the whole circumference.

The whole circumference of the earth must be therefore fifty times the distance between Alexandria and Syene, which Eratosthenes estimated at 5,000 stadia, or about 31,250 miles, an estimate not greatly wide of the truth although as we now know, there were several sources of error in the data. Syene, for instance, is not on the meridian of Alexandria, as Eratosthenes supposed, but widely to the east of it.

This is the story told of Eratosthenes, and here there is reason to suppose that as one of the wily Greek courtiers of the Ptolemaic capital, he had seized upon an opportunity of turning a secret of the ancient Egyptians, whose teachings were the basis of most of the Greek learning, to the renown of his native town and the scene of his own personal prominence.

The measurement which Eratosthenes made from Alexandria to Syene is not nearly so correct as the measurement of the Nile from the Great Pyramid of Gizeh to the Tropic of Cancer, which is about 463 miles and so much closer to the 25,000 miles of the earth's actual circumference and the 8,000 and odd miles of its diameter, being one fifty-fourth of the former (463 × 54 = 25,002).

With this true distance from Gizeh to the Tropic of Cancer as a basis and the distance of the earth's centre ascertained, we can realize what an enormous volume of information lay open to the seer, who in ancient times, however, jealously guarded the secrets of nature while conniving at the feeding of the common people upon the wildest delusions. The symbol of the compasses open at the angle of sixty degrees, is a striking allusion to a system based on the fact that sixty degrees is the arc of the chord presented by the points of the compasses at any opening and that this chord is also the radius of the circle which it will draw at that opening.

Anywhere on the earth's surface the plumb points equally to the zenith and the centre of the earth at an angle of ninety degrees, or the fourth part of the circle to the horizon, which at Gizeh, is sixty degrees above the thirtieth parallel or north latitude.[6]

It seems somewhat ironic that such a simple instrument of science that could so easily prove Earth's tilt (ergo a rotational axis, ergo the heliocentric universe of Copernicus) and also determine Earth's circumference was erected in 1586 (having been moved from its original home of Heliopolis in Egypt) by the church fathers, to stand tall in the center of Saint Peter's Square at the heart of the Vatican: the means by which to prove the heliocentric universe was once again placed in plain sight. Galileo would have been quite right to afford himself a wry smile!

And so we have a simple and perfectly logical explanation for the Masonic association with the obelisks—the two pillars—and the words of their Second Degree teachings, that the sun's rays (combined with a true and straight obelisk) would enlighten one in the ways of science and nature; the obelisk and the sun may well have been the instruments used to determine the angle of Earth's axis of rotation and its circumference. And it goes without saying that such scientific knowledge and the means by which to achieve it would have been deemed completely heretical by the church in former times, and, as such, the meaning and purpose of the obelisk would remain one of Freemasonry's foremost secrets.

The Earth’s Axis in Religious Art

At this point we should explain that there are eight obvious ways by which the 23.5° angle (of Earth’s rotational axis) can be applied within a 360° circle—the plotted lines of which (depending on the orientation of the angle) can appear like an eight-pointed or, indeed, a twelve-pointed star (figure 1.6). These eight ways are from each side of the horizontal and vertical axes (i.e., either side of each of the cardinal directions of the compass), and any one of these orientations can be used to symbolically allude to the heliocentric universe/solar system. It is hardly surprising that during the time of this scientific persecution by the church we find more works of art demonstrating this symbolic angle than in any other period in history. Referring to this knowledge by encoding it would also have served as a voice for these people—many of them geniuses who must have felt frustrated knowing things that were scientifically proven (such as the fact that Earth is not upright, but rather is inclined and orbits the sun), which they could not openly express for fear of attracting the wrong kind of attention and the severest forms of punishment. Having to encode this scientific knowledge presented a paradox in which these people often walked a knife edge.

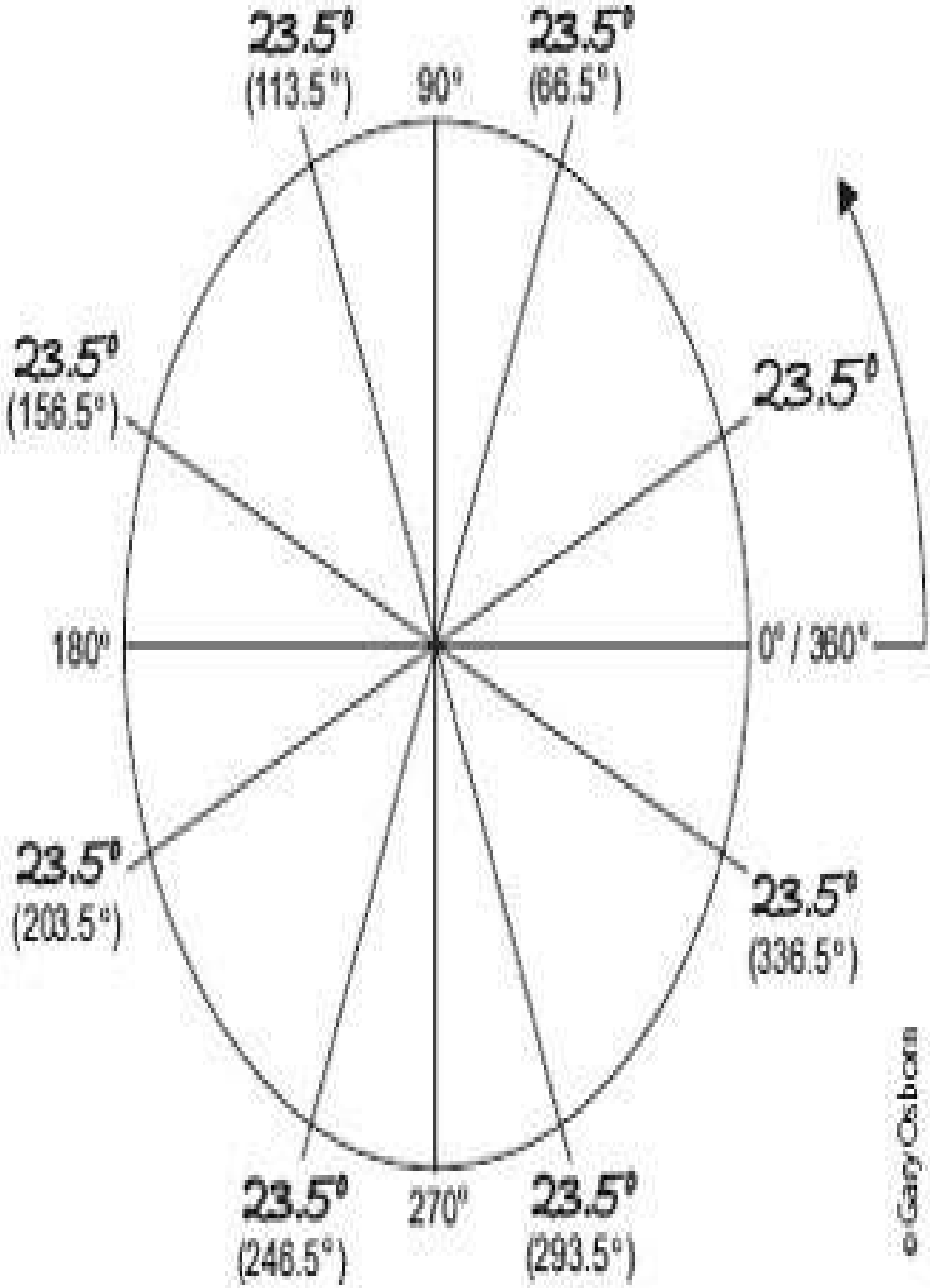

23.5°
(113.5°)
90°
23.5°
(66.5°)
23.5°
(156.5°)
23.5°
180°
0° / 360°
23.5°
(203.5°)
23.5°
(336.5°)
23.5°
(246.5°)
270°
23.5°
(293.5°)
© Gary Osborn

Figure 1.6. The different values given to the same angle of 23.5° in the circular 360° system.

Aside from the use of symbolism, which has been used since time immemorial, the ideal medium for any code or cipher, without it being obvious to anyone that information has in fact been encoded, is the arts. After all, to some extent, one has artistic license to use any imagery one regards as appropriate in the composition. It is of little surprise to find that many buildings, sculptures, and especially illustrations and paintings contain this symbolic scientific sign.

Ironically, we find this symbolic code in paintings that had been commissioned by elite members of the Catholic Church—many of them unaware that they had been patrons to heretical initiates. And it is not unlikely that some of these initiates had infiltrated the Vatican and were behind a good number of these benefactions and investments.

In any case, the encoding of this scientific information associated with Earth's geophysics appears to have become a tradition with artists for hundreds of years —possibly even thousands of years—because we have found that even today there are artists who appear to be encoding the same angle(s) in their works.

One can only conclude from the sheer volume of the references we find to this symbolic angle that the people behind them—artists especially—belonged to a secret fraternity spanning many generations. Having been passed down by tradition, the symbolic angle was likely used by artists who had been initiated into the scientific meaning behind it. The initiate artists who encoded it within their paintings, sketches, and other works of art are numerous, including Raphael, da Vinci, Poussin, Tenniers, Heironymous Bosch, and Albrecht Dürer.

But because of the sheer volume of paintings we have found with references to this symbolic angle of 23.5°, it is also fair to say that many artists may have simply been following tradition, not really knowing why they should paint swords, spears, trees, staffs, limbs, bones, and other linear objects at this angle.

As we can see in the Tallinn Dance of Death (figure 1.7), the painter has used all four orientations of the same angle for the limbs of the dead. Furthermore, in our 360° system, angles are read counterclockwise—the same direction that Earth rotates—from the 0° starting position all the way around and back to the same point, being also 360°. This means that the same angle, which appears eight times in a 360° circle, will have a different degree value as we read each one from 0° to 360°. We will often use a half-circle protractor to measure or plot an angle, as this is really all we need.

23'
23'
23'
23'
23'
23'
23'

Figure 1.7. Detail from the Tallinn Dance of Death. The original painting was said to have been sponsored by the church in 1463 and painted by Bernt Notke (St. Nikolai's Church, Tallinn, the capitol of Estonia, formerly known as Reval). (This is the first section of the full painting, and in the remainder of the painting, again the limbs of the dead are at the same angle of 23°.)

It should be noted that protractors, based on the 360° measuring system, have been around since ancient times and, according to writer-researcher Crichton Miller, represent the hidden science behind the design of the ancient Celtic cross. The initial motivation behind using the degree as the unit of rotation and/or measure for angles is not known. According to Professor G. J. Toomer, the 360° system was most likely based on the approximate number of days in a year, which today numbers 365.25.[7]

The logic for this theory is that ancient astronomers noticed that the stars in the sky that circle the celestial pole were advancing by approximately one-360th of a circle each day. Some ancient calendars—for example, the Persian calendar—included only 360 days for the year, which may be related to the use of the sexagesimal numeral system based on the number 60, as used by the ancient Babylonians and Sumerians.

The division of the circle into 360° is also found in ancient India, as evidenced in the Rigveda, one of the oldest extant texts in any Indo-European language, which dates back to sometime between 1700 and 1100 BCE. Furthermore, as we will show later, from what we have discovered within the angle geometry of the Great Pyramid, there is evidence to suggest that the ancient Egyptians, or whoever planned and built the Great Pyramid, seem to have possessed adept knowledge of the 360° angular measuring system, a notion that is entirely inconsistent with mainstream opinion. This contention may find support with the discovery of Kha's Protractor, an Eighteenth Dynasty (1440–1350 BCE) artifact believed to have been used as a protractor by the famed ancient Egyptian

architect Kha.

The angle of 23.5° is explicitly referenced in many religious paintings from the fifteenth to the eighteenth centuries—especially in scenes depicting the stories of the Bible, the Gospels, and the Crucifixion. The angle is especially recurrent in the numerous paintings of Christ carrying the cross, many of which were commissioned by the church. Like the ancient Egyptian Djed Pillar (said to symbolize the backbone of Osiris), which was raised upright at specific times of the year (such as the vernal equinox), Jesus carries the cross at 23° or 23.5°, and with the cross, Jesus is also raised upright to enter the kingdom of heaven at Easter, during the first full moon after the spring equinox. There are many images of the Djed tilted at the angle of 23° in the Temple of Hathor at Dendera, and one fine example can be seen on a wall relief in the Temple of Abydos. It is said that the Djed symbolizes the shamanic World Tree, the axis mundi, or world axis.

The symbolic angles of 23° and 23.5° also appear in various paintings featuring the Four Horsemen of the Apocalypse (a theme from the Book of Revelation in the New Testament), as if hinting that the apocalypse may in some way be associated with the geophysical condition of Earth and the angle of its rotational axis.

It is worth noting here that the word apocalypse is from the Koine Greek word apokalupsis, which means “unveiling” or “to lift the veil”—that is, “the disclosure of something hidden from the majority of mankind in an era dominated by falsehood and misconception.”[8]

Another significant 23°-angle theme is present in the Mass of St. Gregory. Gregory the Great was a sixth-century pope who, while celebrating mass in the Church of Santa Croce (Holy Cross) in Rome, is said to have had a vision of the crucified Christ surrounded by the instruments of the Passion. Gregory’s vision became a popular subject in medieval art. However, in many of these medieval

paintings Jesus is depicted as twisted and deformed—his torso, head, and many of his limbs at the different orientations of 23.5°.

The angle also appears in paintings depicting the sacrifice of Isaac by his father, Abraham. The sacrificial knife or sword held by Abraham is often at this symbolic angle, as we see in The Sacrifice of Abraham painted by Andrea del Sarto around the mid-sixteenth century in Italy[9] and also in the example in figure 1.8 by Laurent de la Hire (seventeenth century).

Note that the angel is pointing straight upward, while the blade of the knife is angled at 23.5°. This vertical orientation, pointing upward and downward, and also horizontal orientation, as if referencing zero obliquity (i.e., the Ptolemaic church view of Earth), while an object or finger is also pointing at the present (true) obliquity angle of Earth, is another recurring theme, as we will see.

23.5°
0°
23.5°
23.5°

Figure 1.8. Abraham Sacrificing Isaac by Laurent de la Hire (1650, Musée des beaux-arts d’Orléans)

The trees, as in many paintings—especially those by seventeenth-century artist Nicolas Poussin—are also leaning at the symbolic angle of 23.5°. There are other recurring themes that include this angle. Many of the paintings of St. Catherine of Alexandria, known as Catherine of the Wheel, dating from the sixth century CE, contain the angle of 23° in the earliest Byzantine icon depictions[10] and 23.5° in the art of later periods. For example, the right side of the sword held by Catherine in an altarpiece panel now in Innsbruck, Austria (1465–1470 CE),[11] is at the exact symbolic angle of 23.5°.

Catherine was highly learned in philosophy and theology and was condemned to death by being broken on the wheel for stating her beliefs. Apparently the wheel broke when she touched it, and so she was beheaded instead. Catherine is said to be the patron saint of the Sinclairs of Rosslyn Chapel fame, a family that has been associated with the Knights Templar, which leads us on to the next source of our inquiry.

The Templar Seal

As mentioned earlier in this chapter, some traditions hold that the Knights Templar were the precursors to the modern Freemasons and sought refuge in Scotland in the early fourteenth century. In figure 1.9 are two medieval-era images of the official Seal of the Order of the Knights Templar. The seal shows two knights (the founder, Hugh de Payens, and Godefroi Sant Omer) on one horse—said to symbolize their early poverty. The text is in Greek and Latin characters, SIGILLUM MILITUM XPISTI, followed by a cross—meaning “the Seal of the Soldiers of Christ.”

The order was supposedly founded by Hugh de Payens in 1128. These seals date from around 1158, and, as we can see, the knights’ lances are angled at 23°, very close to the symbolic angle of 23.5°.

23°
23°

Figure 1.9. Two images of the Knights Templar seal dating from 1158

The Templar Cross

The Templar Cross Pattée and the Saint John's Cross—often referred to as the Maltese Cross, an emblem of the Order of the Knights of Malta—both have basically the same design (figure 1.10). We found that in most traditional images of the Templar cross, the angle of the arms measure around 23.5°—again, the same as the present obliquity of Earth's rotational axis.

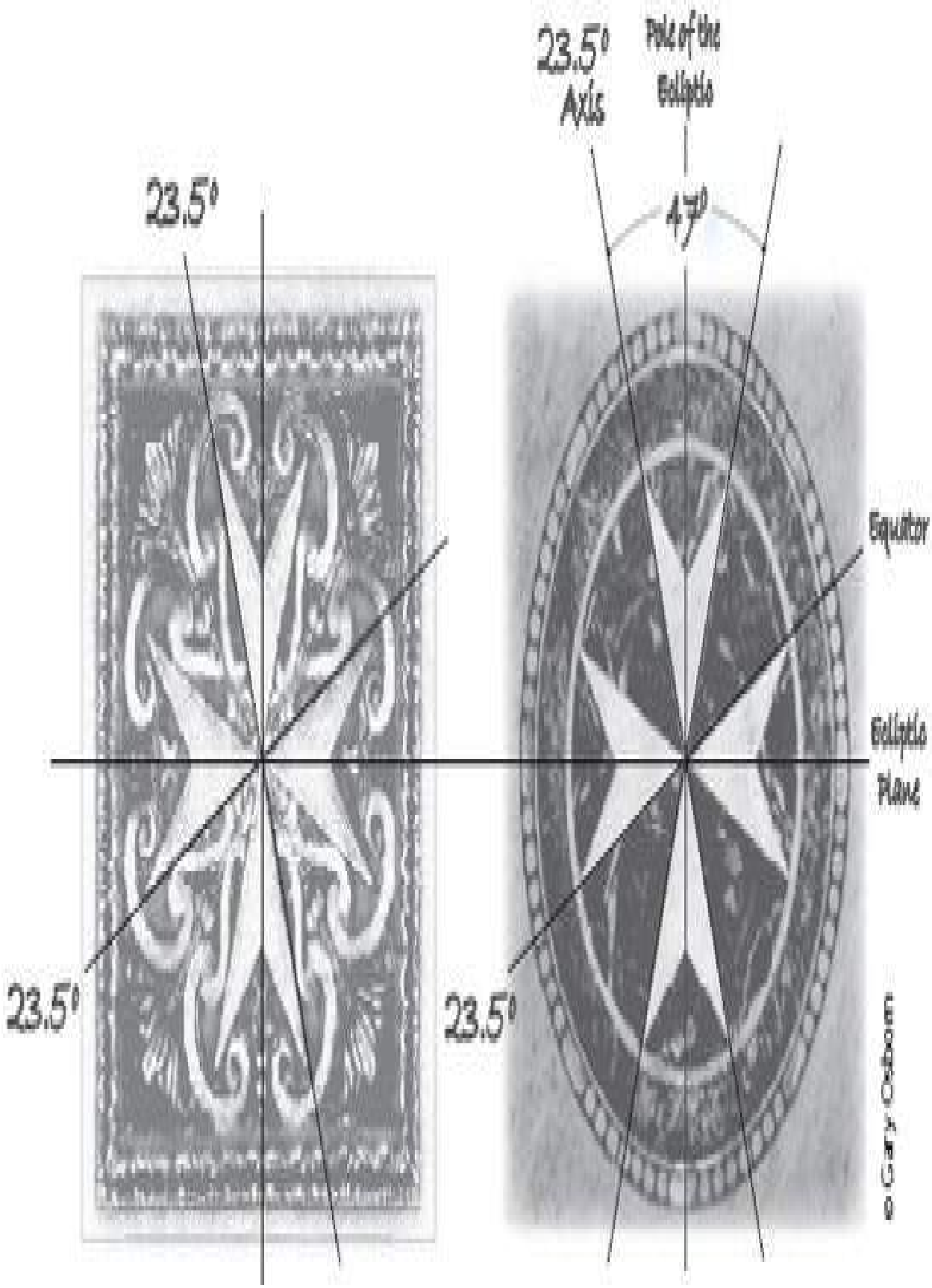

23.5°
Axis
Pole of the
Ecliptic
23.5°
47°
Equator
Ecliptic
Plane
23.5°
23.5°
© Gary Osborn

Figure 1.10. Maltese Crosses from Valletta, Saint John's co-cathedral, Malta, ca. fifteenth century. Note that the two vertical arms would mark the two opposite cones of the precessional cycle—both north and south (diameter of 47°, double 23.5°)—especially as drawn in space around the ecliptic pole in most textbook diagrams of Earth to illustrate the 26,000-year cycle of precession.

From Pyramid to Templar Cross

We noted previously how the Great Seal of the United States makes a connection between the symbolic angle of 23.5° and its pyramid, and also how eminent Freemason Frank C. Higgins also makes this connection between the Great Pyramid at Giza and the angle of Earth's rotational axis.

With a simple demonstration, we can also show that the same information may be contained in the Saint John's, Maltese, and Templar crosses, and that this may also be linked to the Great Pyramid.

The curious thing is that there is apparently no record of the Templars ever having had anything to do with Giza or the Great Pyramid, although old stone-etched Templar Crosses have been found there. Indeed, there are small stone carvings of pyramids and triangles, some with crosses inside them, made by Knights Templar in various locations and also at Giza. There are also curious circular designs with radii—lines radiating outward from their center. Some researchers, such as William Bolitho, have interpreted these Templar designs to be associated with maps of Earth's energy grid, known as ley line meridians, or lines of force, which they say were mapped by the earliest shamans using dowsing techniques.

It is said that the Templars, who traveled far and wide, had some knowledge of this; considering the art of dowsing, which is centuries old, this view is not so far-fetched as it might first appear. In any case, the view that Giza and the Great Pyramid would be important to the Templars, as indeed they are to many of us today, makes sense.

It is a well-known fact that the sides of the Great Pyramid are concave, that they bow inward slightly toward the center of each face—just like the sides of the Templar Cross, which are slightly or greatly inverted in its different variations. So in reality, the Great Pyramid has eight sides or faces. And we should emphasize here that the Great Pyramid is one of only two pyramids in the world that has this concave feature, the other being the third smaller pyramid at Giza (said to belong to Pharaoh Menkaure), G3 as it is referred to by Egyptologists today.

A somewhat curious fact is that the Templar Cross can easily be formed from the Great Pyramid with its slightly concave sides, but instead of opening outward from the apex and each of the sides falling backward, forming a four-pointed star, think of the sides of the pyramid as having been cut along each of its corners, so that when we push down on the apex of the pyramid, the bases of the sides move outward and squash flat into a Templar Cross (figure 1.11).

Figure 1.11. The pyramid and the Templar Cross. © Gary Osborn

Thus we can see how the Templar Cross can easily be formed from a three-dimensional, four-sided pyramid. That the concave sides of the Templar Cross are similar to the concave sides of the Great Pyramid, we would suggest, makes the connection perhaps a little more than mere coincidence. However, this revelation that the Templar Cross design was based on the pyramid is again confirmed by Frank C. Higgins from his book, Ancient Freemasonry (1919).

The characteristic crosses of the Knights Templar, which are faithfully reproduced by the modern Masonic fraternity, are not Calvary crosses, or the type signifying the supreme drama of Christian faith, but four-fold triangles joined at the apexes, the same being identical with a form highly symbolic throughout the ancient East from a period as remote as several thousand years before Christ. They are shown in company with representations of the sun, moon and stars and various zodiacal signs suspended from the necks of the ancient Assyrian and Babylonian monarchs. They are in fact, flattened pyramids and possess the same significance.[12] (emphasis added)

da Vinci's Vitruvian Man

Unsurprisingly, we also find the symbolic angle of 23.5° in Leonardo da Vinci's famous drawing Vitruvian Man. Note that again we are presented with two obliquity values here, if that is what they are in fact alluding to.

Vitruvian Man presents a man who is squarely balanced, vertically and horizontally, as if giving reference to an Earth at 0° obliquity (the Ptolemaic view of the solar system as believed by men of the church). Overlayed we find the same man now with arms and legs at 23.5° (symbolizing the heliocentric view of the solar system as believed by men of science)—the present axial condition of Earth (figure 1.12). In presenting this image da Vinci appears to be alluding to the conflict between science and religious dogma.

The angle of 23.5° also turns up in many alchemical drawings; in paintings from the baroque period (seventeenth century), especially the Vanitas theme, which was popular during this century; in paintings on the theme of Arcadia, which include shepherds, tombs, and skulls; paintings on the theme of Saint Jerome and the skull; and most consistently in paintings of John the Baptist.

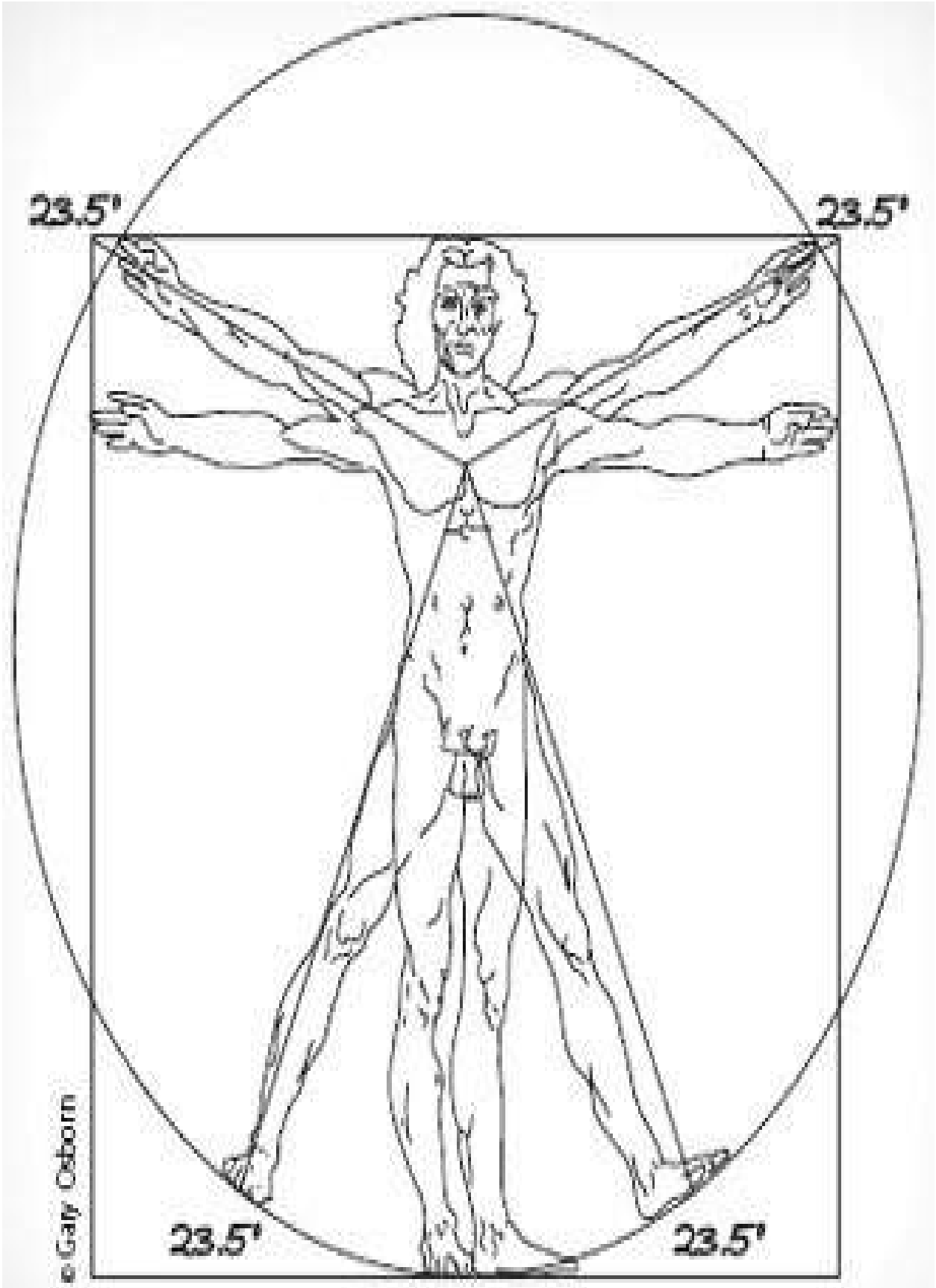

23.5°
23.5°
23.5°
23.5°
© Gary Osborn

Figure 1.12. Vitruvian Man by Leonardo da Vinci, 1513. (The 23.5° reference in Vitruvian Man was first discovered by researcher Don Barone, with additional findings made by Gary Osborn and Jeff Nisbet.)*1

In the above examples (and there are countless others), we have demonstrated how these references to the symbolic 23.5° rotational axis of Earth (hence the heliocentric model) have remained hidden in plain sight within numerous works of art and, most notably it seems, within the seal and cross of the Templars. Is it possible that these various angle references are evidence that the Knights Templar, as far back as 1158, understood that Earth, while orbiting the sun, itself rotated on a daily (diurnal) axis of 23.5°? Or is it perhaps the case that there may be some other profound information to be gleaned from all these historical references to the angle of Earth's obliquity? We will consider this possibility later.

From the evidence we have uncovered, it does seem reasonable to speculate that references to Earth's rotational axis of 23.5° have been intentionally placed by various groups and individuals over the centuries—and possibly much longer—into various structures (churches, cathedrals, abbeys, etc.) and countless works of art and other artifacts in what seems to have been a deliberate attempt to undermine the dictates of the church and to keep scientific truth alive. And it seems that they succeeded. In the words of Freemason Frank C. Higgins:

It is also manifest that the technical terms of ancient science varies but slightly all over the globe. The circle was divided into 360° for convenience of measurements, the properties of the "Pi proportion" applied to the squaring of the circle, the law of the square of the hypotenuse, the number of days between solstices, the geometry of the solar system, the cycles of the planets and the phenomena of terrestrial motion are not inventions of man which can be one thing in one place and another elsewhere.

The third and fourth chapters of Prescott's immortal "Conquest of Mexico" tell precisely what the Spaniards found in this respect upon their arrival in America, so that it is not proposing an at all wild or improbable hypothesis to assume that as these same facts were at the root of the religious mysteries of the whole ancient Eastern world they performed a precisely similar role on the American continent. Freemasonry has preserved the assurance in its ritual and symbolism, that this is the case through long ages of persecution and tyranny which have conspired to suppress all popular knowledge of the fact.

The evidences of a community of crude scientific knowledge between the widely separated ancient races of Asia, Europe and America, and with particular reference to the latter, its distribution over our own continent, from the great lakes of the North to the Andes in the South, are bound up in the existence everywhere, over the entire enormous expanse, of graven and sculptured objects, ranging all the way, from tiny amulets and so-called "ceremonial stones" to monoliths, elaborately carved "idols" and gorgeous temples designed uniquely to set forth the principal cosmic figures and angles of astronomical observation.

These may be briefly enumerated as the angles of 23½°, that of the inclination of the earth's axis to the pole of the ecliptic and of the equator to the plane of the ecliptic 47°, or double the foregoing, which apprises their knowledge of the circumpolar motion; the precession of the equinoxes, the earth's orbit, equinoxes and solstices; the angles of 66½° and 113½°, which relate to the crossing of the plane of the ecliptic by the earth's axis and that of the equator by the pole of the ecliptic.

These are the angles which are so closely bound up with the cosmic expression of the divine name of Jehovah, but closely associated with them are various triangles and oblong figures, such as the triangle of Pythagoras (3–4–5) and its derivations, the 3–4–3 triangle, which gives us the side of a square and the radius of a circle equal circumference thereto, this latter being the vertical axis of the great Pyramid of Cheops, at Gizeh, Egypt.[13] (emphasis added)

The Mystery of the Second Degree

As we delve further into the topic of this book, we will discover that the angle of Earth's axis of rotation seems to have been studied and recorded even in the most remote times (as indicated in the previous passage) and long before any possible references made by the Templars in 1158 CE with their lances angled at 23°. And, as we shall see, not all is what it might at first appear, and there may, in fact, be much more to the hidden science and secrets of Freemasonry with regard to Earth's axial tilt than the Craft will ever openly or easily divulge.

One subtle hint to the possibility of additional and quite profound knowledge relating to Earth's rotational axis that we suspect may exist within the Craft is perhaps alluded to within the initiation ceremony of the candidate into the Second Degree of Freemasonry. This initiation ceremony takes the form of a question-and-answer dialogue between the Master of the Lodge and the candidate.

Q: When were you prepared to be a Mason?

A: When the sun was at meridian.

Q: As in this country Freemasons' lodges are held and candidates initiated in the evening, how do you reconcile that which at first sight appears a paradox?

A: The sun being at the center and the Earth revolving around the same on its own axis and Freemasonry being diffused throughout the whole of the inhabited

globe it therefore follows that the sun is always at the meridian with respect to Freemasonry.[14]

In the above exchange we are informed that the candidate is prepared to become a Freemason when the sun has reached the meridian, that is, when the sun has reached its highest point in the sky—noon. This then creates an apparent paradox because the initiation ceremonies of Freemasonry, we are told, always take place in the evening after the sun has set. Of course, the paradox here is that the candidate is initiated into the Second Degree when the sun is apparently at two widely different positions in the sky in the very same moment. Of course, this is quite impossible; the sun cannot be in two widely different positions in the sky at the same moment in time.

The candidate's reply to this paradox, while seeming perfectly plausible, alludes once more to the heretical notion that Earth rotates on an axis and orbits the sun —the heliocentric model. But is this all this paradox alludes to—the heliocentric universe? Or is there perhaps something else, something much more profound, to be discovered in these veiled words, something that modern Freemasonry itself may in fact have lost sight of?

We ask this because when modern Freemasonry first began (supposedly in the eighteenth century, although its origins are far older), it could hardly be described as being "diffused throughout the whole of the inhabited globe." It seems to us that the candidate's response to the Second Degree paradox may simply be nothing more than a cover story, a smoke screen, and that if we dig deep enough we might uncover a more fundamental truth that reveals an alternative answer to this paradox and that may also be related to the angle of Earth's axis of rotation.

And so, just as the Second Degree of Freemasonry seems to hint at the use of the sun's rays to seek out scientific enlightenment (perhaps through the use of the obelisk or pillar), it seemed to us that this exchange within the initiation

ceremony of the Second Degree may also be hinting at another possible (though much more profound) answer to this paradox. And it is, perhaps, as stated, an alternative answer that the Craft itself may in fact have lost sight of long ago—a lost “original truth.”

The alternative explanation we propose to answer this paradox will be presented later in this book. For the moment, however, suffice it to say that it is an explanation that is staggeringly simple (if somewhat controversial), yet what is more significant here is that it is an explanation that is bound up in the very structures to which the symbology of Freemasonry makes constant reference and to which some circumstantial evidence seems to indicate an ancient connection —the great pyramids of ancient Egypt.

In the course of our analysis of this most ancient civilization, we will demonstrate some significant new discoveries that seem to indicate a knowledge of the sciences far in advance of anything mainstream Egyptology attributes to the Egyptians of the pyramid-building age. We will find the fingerprints of an invisible college whose relatively advanced scientific knowledge seems to have been preserved and passed down from the most ancient of times.

And so it is to ancient Egypt that we must now turn our attention, for it is within the pyramids in that most ancient of lands that we believe may lie the true answer to this mystery of the Second Degree; as we shall later discover, it is an answer that may well lead us to a very different view as to why these awe-inspiring ancient structures were actually built.

But before we can even begin to attempt to answer this mystery of the Freemasons’ Second Degree, it will stand us in good stead first to consider these ancient monuments from their conventional perspective. After all, it stands to reason that if these structures so influenced these organizations through the imparting (and perhaps storing) of some ancient wisdom, then this must call into question the mainstream view that these structures were constructed as tombs

and tombs only for the kings of ancient Egypt. And, conversely, if it can be shown beyond reasonable doubt that the pyramids (i.e., the first, giant pyramids) were indeed built as tombs and tombs only, then we would have to conclude that there is no mystery, no ancient wisdom or other profound knowledge to be gleaned from them.

So just how strong is the evidence supporting the conventional view that these colossal, early pyramids were conceived and built as tombs and tombs only? Let us now consider this question.

Chapter 1 Summary

The heliocentric model of the solar system as proposed by Nicolaus Copernicus was rejected by the church of the late Middle Ages, which saw the house arrest of Galileo Galilei. This sent out a strong signal to men of science and reason that the church would not tolerate such heretical ideas, which resulted in the formation of secret societies in which such ideas could be pursued, preserved, and passed on.

The scientific concept of the heliocentric model of the solar system seems to have been preserved through the numerous works of masons and artists over many centuries.

Some of these works—in particular the Great Seal of the United States—seem to make a connection between the pyramid and Earth's rotational axis.

Although modern Freemasonry appeared in the early eighteenth century, its origins go back much earlier, and there is some evidence to suggest that it is but the reconstitution of a much earlier secret society, the Knights Templar, an order that may itself stretch deep into the mists of time.

The symbols of the Freemasons, particularly the obelisk and twin pillars, may allude to the instruments of their ancient science, a science that may stretch far back into antiquity, even to the time of the earliest dynasties of ancient Egypt.

The words of the Second Degree of Freemasonry initiation may allude to the use of these scientific instruments with the sun’s rays.

The subtext of the Second Degree teachings may further indicate a more profound knowledge relating to Earth’s rotational axis yet to be revealed.

2

SOMETHING AMISS

Ask any twelve-year-old the purpose of the great pyramids of ancient Egypt, and often the response will be that they were built as the eternal tombs for the dead pharaohs. This notion that all pyramids were built to serve as tombs for pharaohs has become so pervasive and prevalent in our education systems that it is accepted without question. For the vast majority of us, the tomb theory (for it is still only a theory) is what we have been taught, and so we see little need to question it.

In this chapter we will consider the conventional case for the tomb theory, paying particular attention to the first, giant pyramids Egyptologists have attributed to the kings of the Old Kingdom period, and, in so doing, will highlight a number of anomalies that raise some awkward questions as to the perceived function of these structures as stated by orthodox scholars.

Pyramid Building: What Came First?

Simple progression of most things dictates that more sophisticated and complex things appear at the end of a progression, not at its start, that perfection is something we all evolve toward, and that life is but a series of progressions that accumulate toward the ideal, the ultimate in perfection.

It is little wonder, then, that Egyptologists have adopted this rationale with respect to the pyramids. They state that pyramid-building in ancient Egypt was but a series of progressions from the crudest burial mounds and mastabas that barely exist today, built during the Third Dynasty of the Old Kingdom, finally culminating in what are regarded as the Old Kingdom pyramids of the Fourth Dynasty, ca. 2600 to 2450 BCE—including the three colossal pyramids of Giza and, in particular, the largest and most perfect pyramid of them all, the Great Pyramid.

The pyramids-as-tombs theory is also wrapped up in this ideology, that the pyramids evolved from the simplest burial mounds to the perfect true pyramids we see today at Giza, as it is thought that the whole pyramid concept emerged out of an almost obsessive necessity, associated with the ancient Egyptians' beliefs about the afterlife, to build stronger, better, and longer-lasting tombs for the sake of preserving the physical bodies of their kings and queens after death and to ensure their existence in the afterlife, thus bringing benefit to all.

It was believed that in death, if the king could successfully pass through final judgment in the Hall of Ma'at, he would then enjoy an afterlife with the gods and from there could continue to protect his people on Earth by ensuring the Nile would flood and the crops would grow. In short, in the minds of the living people of ancient Egypt, the dead king still had an immensely vital role to play in ensuring that the country would continue to thrive.

As stated previously, it is known that the earliest tombs of the pharaohs were simple pits sunk into the ground and covered over with a mound of sand and gravel, the mound believed to symbolically represent the ancient Egyptian mythical “mound of creation” that arose out of the primeval waters. This simple mound is believed to have then evolved into large, dug-out, rectangular bunkers with sloping walls made from sun-dried mud brick, known as mastabas, many of which quickly crumbled back to dust. Apparently, however, this all changed ca. 2630 BCE—so conventional thought asserts.

Egyptologists believe that the conception of the pyramid and pyramid construction began with the first stone-built “tomb” ever constructed: the Step Pyramid that still stands at Saqqara and was said to have been built for the first king of the Third Dynasty of the Old Kingdom period, King Djoser (Zoser), by his innovative architect, Imhotep. It was Imhotep, considered one of the greatest physicians and scientists in Egyptian history, who first introduced the use of dressed stone (stones whose sides have been smoothed in order to fit flush to adjoining stones) in these early construction projects. There is also a hint that Imhotep had access to secret texts that perhaps provided the inspiration behind Djoser’s pyramid concept. In the colonnade of the Temple of Horus at Edfu, we find this intriguing statement: “They [the temples] were built according to an architectural plan which was supposed to have been revealed in a codex that came from the heavens at Saqqara in the days of Imhotep.”[1]

Djoser’s pyramid at Saqqara was essentially the result of stacking one massive mastaba on top of another, resulting in a six-tiered stepped pyramid structure (figure 2.1). Again, the conventional belief is that from this early pyramid construction there was a successive progression toward the construction of the perfect “true pyramid,” culminating in the relative perfection of the great pyramids at Giza. This learning curve makes perfect sense and is what we might expect with a natural progression in pyramid building.

Curiously, however, close to the Step Pyramid complex of Djoser at Saqqara is

the Pyramid of King Unas (figure 2.2), which is said to date to the end of the Fifth Dynasty, ca. 2340 BCE and long after the Great Pyramid, which is believed to have been built ca. 2550 BCE. However, the Pyramid of King Unas—the first pyramid found to include religious inscriptions on the walls of its main chamber and more than 700 spells and incantations intended to assist the dead king in the afterlife, known as the Pyramid Texts—is virtually in ruins, having apparently collapsed soon after its construction. The reason for this collapse is that, unlike the Giza pyramids of the earlier Fourth Dynasty, which had layers of limestone blocks at their core, the Pyramid of Unas was built with nothing more than a core of rubble.

Figure 2.1. The Step Pyramid of King Djoser at Saqqara (Third Dynasty); photo by Scott Creighton

We must ask ourselves, if it was so important to ensure the security of the king's mortal remains through the construction of the most perfect and most impregnable pyramid (as exemplified in magnificent fashion by the great pyramids of Giza), then why do we find such a sudden and dramatic decline in the construction of pyramids both during and immediately after the Fourth Dynasty, when the pyramids of Giza were said to have been built? Did the ancient Egyptians no longer care to protect the mortal remains of their king, so it no longer mattered to them to construct a "fortress pyramid"? Did it no longer matter whether the king's mortal remains were secured to safeguard the future viability of the nation?

This is unlikely in the extreme since, as previously stated, the role of the deceased king was to ascend to the heavens and commune with the gods on behalf of the kingdom to bring it peace and harmony (Ma'at), to ensure the Nile would flood and crops would grow. Of paramount importance to the success of this belief system was the eternal protection of the king's mortal remains and the prevention of their desecration by tomb robbers, since such an act would have made it impossible for the dead king to return to his tomb each night and to fulfill his vital role in the afterlife.

Figure 2.2. The Pyramid of King Unas at Saqqara (Fifth Dynasty); photo by Scott Creighton

It was believed that if the king's mortal remains were violated or desecrated in any way then chaos would ensue across the land. Given a belief system that depended on the absolute security of the king's remains, surely it stands to reason that once the know-how in constructing large, stable, impregnable structures had been attained, this technical know-how would have been preserved and passed on to later Egyptian dynasties to allow them to build even stronger pyramids (though not necessarily larger) for the eternal protection of the mummified remains of their kings and, in so doing, to safeguard Ma'at for future generations.

And yet the evidence clearly shows that the completed pyramids that came immediately after the technical excellence of Giza are significantly smaller, of inferior construction, and much less accurately aligned to the cardinal directions. Why should this be? Why is it that the technology and technical excellence that had been built up from the first pyramid-building success of Djoser and that culminated in the magnificence we find at Giza appears suddenly to have vanished? But even more curious to this line of inquiry is the pyramid constructed by Radjedef (also known as Djedefre), Raufu's*2 son (not, in our opinion, Khufu's son, as is commonly believed) and immediate successor.

We must ask, first of all, what prompted Radjedef to abandon the family pyramid field at Giza (where, at this time, apparently only Khufu's pyramid stood) and opt to build his own (unfinished) pyramid at Abu Roash. It is said that Radjedef 's decision to build away from Giza was perhaps the result of a family rift, although more recent studies seem to discount this. However, it is known that elements in the construction of Radjedef 's unfinished pyramid revert back to construction methods of much earlier times, and it certainly does not seem to have been built with the same sense of purpose as those at Giza. In the words of Dr. Mark Lehner, "The very pronounced alignments between the pyramid

complexes at Giza show considerable concern for unity of design over three generations. An anomaly in this, however, is the pyramid built by Radjedef, Khufu's son and successor."[2]

This seems somewhat peculiar, given the fact that Radjedef supposedly built his pyramid during or just after the construction of the Great Pyramid at Giza and before his brother Rachaf (more commonly known as Khafre) supposedly built his own majestic true pyramid alongside Khufu's Great Pyramid at Giza.

Why is it that Radjedef, who we are told reigned between the construction of the two giant pyramids at Giza, was unable to emulate the greatness of either, or even come close to it? How was it that his brother and successor, Rachaf, could apparently match the magnificence of the Great Pyramid while Radjedef (who reigned immediately after the construction of the Great Pyramid) failed so miserably?

What seems quite clear from Radjedef's unfinished and completely ruined pyramid at Abu Roash is that a considerable loss of confidence in pyramid building seems to have occurred and then (apparently) immediately recovered in time for Rachaf to complete his own quite monumental pyramid at Giza, which more than matched the greatness of the Great Pyramid of Khufu. Why did Radjedef seemingly lose confidence in his pyramid-building abilities while his brother and successor, Rachaf, appears to have had few problems? How can we make sense of this?

In our opinion, the only way this apparent loss in confidence in pyramid construction by Radjedef (and its speedy recovery by his successor, Rachaf) can reasonably be explained is by taking a quite radical view of the accepted chronology of ancient Egyptian history and by suggesting that the pyramids at Giza—all of them—may have already existed before the reigns of these Fourth Dynasty kings and that these pyramids may merely have been appropriated by them as their eternal tombs.

With respect to Giza, this is hardly a new idea and was first proposed by researcher and writer Alan Alford with his Giza adoption theory. However, we take this idea much further and suggest that all the pre–Fifth Dynasty pyramids at Giza, Meidum, Dahshur, and Saqqara may in fact belong to another time, to a much earlier Golden Age in the history of ancient Egypt and to the First Time (known as the Zep Tepi) of this most ancient of civilizations.

With a sudden and cataclysmic collapse of this earlier Golden Age, the Egyptian civilization was effectively reset, having been plunged into a prolonged Dark Age from which it would perhaps take hundreds (possibly even thousands) of years to recover, only to rise again, phoenixlike, from the ashes of its former glory into the period we now call the Old Kingdom, ca. 3100 to 2200 BCE.

It also appears that this post–golden age decline in pyramid-building ability (which, we suggest, predated the entire dynastic and archaic periods) was also matched with a considerable loss of skills in other aspects of Egyptian life. For example, in their 2010 book, In Search of Cosmic Order: Selected Essays on Egyptian Archaeoastronomy, Belmonte and Shaltout write:

The reliefs and statues that were created during this period [First Intermediate Period] often lack the refinement of their . . . predecessors: the craftsmanship was rather clumsy or even sloppy and figures were stiff and lacking in correct proportion.[3]

So, with Radjedef's father (Raufu) merely appropriating the Great Pyramid (built by Khufu perhaps long before the Fourth Dynasty period) as his eternal tomb, it may then have been the case that Radjedef, unlike his father, Raufu, and his brother and successor, Rachaf (Khafre), feared insulting the memory of his ancestor gods by appropriating one of the already extant Giza pyramids (built in the former golden age) as his tomb. Is this perhaps the reason why Radjedef

opted for a virgin site at Abu Roash, where he set about building his very own pyramid tomb, creating an inferior pyramid structure using builders who had lost much of their technical know-how and ability as a result of the lengthy Dark Age that had passed from the time of the former Golden Age to his own time, ca. 2500 BCE?

If this were indeed the case, then effectively what Radjedef was in fact attempting was the first pyramid construction project since the collapse of the former Golden Age—his father, Raufu, and brother, Rachaf, having perhaps merely appropriated the two large Giza pyramids, making some minor repairs and adding some embellishments such as the causeways and temples.

In Radjedef ’s unfinished pyramid—inferior as it was to the giant pyramids of the former Golden Age—we have the ancient reconstituted Egyptian civilization actually making its first attempt at regaining its former glory, to rise again from the ashes, to establish a new age of light, a fresh beginning, a new Golden Age. And this may also explain why Radjedef (apparently) became the first king of the Fourth Dynasty to use the sun disc of the god Ra (or Re) within the royal cartouche (although we contend that it was his father, Raufu, who was probably first to do this).

With this simple act, Radjedef (or his father, Raufu) was perhaps symbolically stating that the sun was once again shining on the fortunes of his kingdom and that it had at last risen from the darkness of its catastrophic past and was now entering into a new Golden Age of the sun.

So it may well be that, far from lacking confidence in the pyramid-building capability of his time (even though he seems to have ultimately failed to finish his pyramid), Radjedef may actually have been the most confident of all the Fourth Dynasty kings by making such a bold attempt to recover the greatness of the former Golden Age of pyramid building through his bold attempt to achieve for himself the glory of his ancestors.

And, of course, it stands to reason that Radjedef ’s complete failure to get anywhere near the majesty of the Giza structures—indeed, even to finish his pyramid at all—may have prompted Rachaf (Radjedef ’s successor) to follow his father Raufu’s example and merely adopt one of the existing Giza structures as his tomb—the second of the large Giza pyramids (G2), perhaps followed in turn by his own son, Menkaure, having to settle for the smallest and last of the three large Giza pyramids as his eternal tomb.

Further attempts at constructing pyramids were made by other Fourth Dynasty rulers who followed Radjedef. The unfinished pyramid at Zawiyet el-Aryan is just one such example; it was supposedly constructed by a king who reigned between Rachaf and Menkaure for such a short time that he may have been overlooked in the king lists.[4] Once again, what we find with this unfinished pyramid is another example of the complete inability of the rulers of this period to emulate the very large pyramids of the former Golden Age. Indeed, other rulers toward the end of the Fourth Dynasty, such as Khentkawes and Shepseskaf, did not even bother attempting to build pyramids, preferring instead to construct simple mastaba tombs as their most ancient forefathers had done. Perhaps these rulers had learned from their Fourth Dynasty predecessor (Radjedef) the folly in attempting to match the work of the gods, their ancestors of the Golden Age of their civilization.

All this, then, raises the obvious question, If, as we suggest, the later Egyptian dynasties ca. 2500 BCE merely appropriated the very large pyramids as their eternal tombs, was this actually the original function and purpose that the Golden Age architects and builders had actually intended for these pyramids? Was it always the intention that these pyramid structures were to function as tombs, even in the proposed Golden Age period?

What seems abundantly clear is that Giza represents the culmination of a very long progression in the development of pyramid building, and then, upon completion of Giza, this very large pyramid-building project seems to have

suddenly ended. It is almost as if Giza represented a long-term goal that—when completed—would represent the implementation of some master plan, the implementation of a codex of some kind.

In short, it seems that the pyramids at Giza—if they were indeed part of some kind of master plan or codex—could never have been conceived to serve as tombs and that they were likely to have been built to serve some grander purpose. That purpose was probably far removed from the pyramid constructions that would come much later in the Middle Kingdom period. We suspect those were—in all probability—built as tombs in homage to the pyramid constructions of the earlier period and used perhaps as the means of reaching the afterlife, which the later dynasties would come to believe was the purpose of the very first, giant pyramids. And, of course, by emulating the work of the gods in building a pyramid, the reigning king of the later dynasties would hope to be seen as a god himself in the eyes of his people.

But the most important aspect of the Giza project is what it came to represent to later dynasties—that the early giant pyramids were somehow connected with the preservation or continuation of life and that the pyramid, through its rejuvenative and regenerative qualities, was itself the means through which the pharaoh could ascend into the afterlife. This idea, of course, would have been a strong incentive for later kings to build their very own pyramid, their very own afterlife machine. But this idea of the pyramids as the means through which the king could reach the afterlife may be nothing more than a corruption of an earlier, much more practical pyramid concept, a misinterpretation of the original purpose of the Golden Age pyramids, including those at Giza. Yes, the pyramids would rejuvenate and preserve life, would enable life to continue through a process of revivification, but not strictly in the religious manner interpreted and understood by the later ancient Egyptians—the concept of an Osirian afterlife reserved purely for the king (although this concept would become democratized in later dynasties).

As we will demonstrate later, one of the key functions of the layout of the

pyramids at Giza seems to be the presentation of an astronomical calendar. We suggest that this is why the main structures at Giza were laid out in the manner that we find them. And through our lengthy analysis of this astronomical calendar we believe exists at Giza, it is our opinion that it presents three dates (two past dates and one future date) that may serve to indicate the timing (past and future) of a cataclysmic cycle of Earth that the Great Pyramid builders seem to have understood (an Earth cycle our civilization has perhaps forgotten). That may be why this remarkable civilization went out of its way to move heaven and Earth to prepare for the advent of this cataclysmic cyclical event.

It seems to us that the afterlife the people of the Golden Age hoped for may not have been some religious concept that would place them among the stars (a religious idea that later dynasties would come to believe), but rather the continuation of life after the cataclysmic event that they believed (or even predicted) would bring about the end of their civilization.

And by constructing these giant pyramids, including Giza, they were putting in place the means by which their descendents could kick-start their civilization again after the predicted catastrophe had struck. Not only that, but through the information they plainly and cleverly encoded into the layout of the Giza pyramids, the knowledge of this deadly Earth cycle would be made known to all future generations of their civilization, so as to allow them to make recovery preparations for the next arrival of the cyclical cataclysm that they believed would soon bring about the collapse and destruction of their own world—a collapse that we know from historical records did indeed come to pass when the so-called Old Kingdom collapsed, apparently as a result of sudden and catastrophic climate change, a theory that is supported by recent scientific analysis of lake core samples.

And so, within the various and numerous chambers of all the early giant pyramids—and in particular those at Giza—would be stored all the essentials that would be needed to secure the continuation, preservation, and revivification of their civilization: seeds, pottery, tools, weapons, linens, oils, practical texts,

sacred texts, and so forth. And it has to be said, this is not unlike the precautions our own civilization is presently undertaking by securing the Svalbard Global Seed Vault, which opened in February 2008, the purpose of which is to secure crop diversity in the event of some unforeseen global catastrophe.*3 We will consider this hypothesis in more depth later in this book.

But in consideration of the very large pyramids that may belong to a former Golden Age of ancient Egypt, some significant obstacles have to be overcome before we can accept the mainstream hypothesis that any of these structures were originally conceived and built for the sole purpose of burial.

Pyramid Evolution

One of the key pieces of circumstantial evidence orthodox scholars often cite as proof that all the pyramids of ancient Egypt were conceived and constructed as tombs (and only as tombs) is the supposed evolution of the pyramid (which we have briefly discussed). The great pyramids of the Giza plateau, we are told, started some 500 or so years earlier as simple burial mounds, pits in the ground covered over with piles of sand and gravel that supposedly symbolized the primordial mound of creation, into which the human remains were placed.

Over time this sand and gravel mound became a more solid structure—a rectangular edifice known as a mastaba, with inward-sloping walls built of mud brick. In the time of the Third Dynasty's King Djoser, the mastaba supposedly evolved into the world's first-ever pyramid, which was essentially created by stacking one giant mastaba on top of another—six tiers in all. Finally, the true pyramid arrived by filling in the mastaba steps to create a smooth-sided true pyramid form.

Thus we are apparently presented with a seemingly clear and natural evolution from a primitive burial mound to the majestic burial mountains of the great pyramids. On the surface this seems very reasonable, and it is perfectly understandable why Egyptologists might have arrived at such a view of the pyramids as tombs, since it is clear that the burial mounds and mastabas from which the pyramid is presumed to have evolved were indeed used as tombs.

However, if the primary and overriding objective of the ancient builders was, for example, simply to build a massive structure that could be observed for miles in all directions, then for such a large structure to be stable and durable, it would by necessity take the form of a pyramid, for this particular structural form would offer the builders the most stable and lasting large structure they could ever have

hoped to construct using ancient technology. And we should take note here that the construction of massive pyramid mountains (as opposed to the much smaller mastabas) would seem to have been the overriding imperative; building big seems to have been the essential requirement of the early pyramid builders, and, it would appear, for a very good reason.

In essence, regardless of the function of a particular structure—be it a store, granary, tomb, initiation chamber, or whatever—if building big was essential to the function of the planned structure, then, as previously stated, the pyramid form would offer the most stable and durable structure for any of these functions. It follows that it cannot be assumed that simply because the structures at Giza take on a pyramid form similar to the primitive burial mounds of predynastic and early dynastic times, the function of the large pyramid structures at Giza was the same, that is, tombs.

Of course, advocates of the pyramids-as-tombs theory will point to the fact that the Giza pyramids are built within a necropolis and surrounded by numerous mastabas. We would counter this, however, by pointing out that a church might likewise be surrounded by numerous mausoleums, but this does not mean that we should consider the church itself to be also a mausoleum, the biggest mausoleum. Their respective functions are quite different. Furthermore, if the great pyramids were somehow regarded as providing the means to the afterlife, who would not have wanted to have his or her final resting place alongside such an edifice? But, as stated earlier, the belief that the pyramids provided the vehicle of transformation and ascension into the afterlife may not originally have been the view of the afterlife that later dynasties came to accept and believe—the original concept being more of practical survival, of ensuring that the early, giant pyramids stored the means for the kingdom (not just the king) to revive itself after a catastrophic event and offered a way to allow future generations of their civilization to know the timetable of this cyclical event, thus allowing them to make preparations for it.

What we also know about the pyramids of the period Egyptologists refer to as

the Old Kingdom is that some structures known as the Provincial Step Pyramids were categorically not built as tombs, since they have no burial chambers either within or beneath them. There is no mainstream consensus as to the purpose of these nontomb pyramids, and they remain something of a mystery to conventional Egyptology. In addition to this—and we will discuss this in greater depth later in this chapter—are the so-called pyramid cenotaphs. These are pyramids that do indeed have chambers within or below the pyramid but that were believed never to have been used for burial.

While it remains a common misconception that all pyramids in ancient Egypt were built as tombs for kings, clearly we can see that the ancient Egyptians were building pyramid structures that had nothing whatsoever to do with burial. What, then, we must ask, was the purpose of these nontomb pyramids? Surely it is not unreasonable to expect that any theory that proposes to explain the ancient Egyptian pyramids should find a consistent means to explain all pyramids within the theory and not just a select few. And of those remaining pyramids that Egyptologists claim were used for purposes of burial, how can we be certain that these pyramids were not the subject of later intrusive burials (especially so when the evidence of original burial within pyramids, as we will see shortly, is so meager)?

So, the primary and overriding reason for the construction of pyramids may simply have been that, first and foremost, the ancients desired to build extremely large, stable, durable, and—above all—highly visible structures, structures so massive and so obviously artificial that they would attract attention and be easily found, since, being so massive and so obviously man-made, no one could possibly fail to notice them; they could be observed for miles around. We have to ask ourselves, then, is this really what the designers and builders of the pyramids would have desired for the tomb of their king, whose role in the afterlife was to ensure the continued prosperity of the land—that it would be so highly visible to thieves and desecrators for all eternity?

Does this even remotely make sense?

In answer to this question, those of a conventional mindset are quick to point out that these first pyramids were built so large as to befit the stature of a god-king. If this were so, however, it seems remarkable then that we find not a single official inscription to these god-kings anywhere inside any of these early giant pyramids, not even on any of the so-called sarcophagi, although, curiously, we do find the sarcophagi in the mastaba tombs of this period fully inscribed with hieroglyphs. Why, then, we must ask, was it so essential to build such massive pyramids to apparently reflect the greatness of these god-kings, while at the same time going out of the way to ensure their names would be forever lost to history? Why inscribe hieroglyphs onto the sarcophagi of the sons and daughters of the king but not onto the sarcophagus of the king himself? Even if such a desire were a matter of personal taste, statistically it is improbable that all early pyramid sarcophagi should bare no inscriptions, that their owners should all have had the same taste!

And why do we find the precise opposite of this occurring in the period after the sudden and dramatic collapse of the great pyramid-building age, which Egyptologists date to ca. 2200 BCE? Why do we find in this later time that the king’s tomb and his sarcophagus is inscribed with religious writings and iconography? Doesn’t this single fact alone indicate to us that the early giant pyramids of ancient Egypt were built to serve a wholly different function than to house and honor the remains of a dead king while the later, smaller pyramids may indeed have been built for such a purpose?

Beacons of Madness (the Pyramids-as-Tombs Theory)

As touched on previously, we are told that the most vital role of the king of ancient Egypt was that his soul should ascend to the heavens to join the stars, whereupon the king would commune with the gods on behalf of the Egyptian people to ensure the kingdom would continue to prosper in peace and in perfect balance, to ensure Ma'at. To this end it was absolutely vital that the king's mummified remains be safeguarded for all eternity against the selfish actions of tomb robbers and desecrators, of which—we are assured—there were many.

Does it seem logical then that a king would go and build a monumental stone pyramid, a structure that is among the largest constructions in human history, to advertise to all and sundry, including those who would do him harm, the precise whereabouts of his tomb, his treasure, and—most important of all—his mortal remains?

If most of these very large pyramids were indeed designed and built as tombs during the Old Kingdom period, as Egyptologists assert, are we really expected to believe that their owners were so trusting that they had never considered the possibility that their subjects—in times of dire need (famine, drought, and pestilence)—might desecrate and pillage these tombs for valuables and even basic shelter?

Where the prospect of gold and other treasures is concerned, the owners of these "tombs" would have known full well that the mere thought of such booty would surely have served as a magnet for every tomb raider and low-life thief in the land. They may also have understood that the thermal shock of fire and water on limestone blocks would have rendered their "fortress tomb" as vulnerable as a soft cheese. And of even greater concern to the king and his entourage of priests and other advisors would be the thought that those who could so skillfully

extract limestone blocks out of a quarry to build the pyramid in the first place could just as easily remove such stones from the pyramid itself.

Does it seem plausible that the supposed owners of these purported tombs would not have been more than a little concerned about this, that they would not have given such a possibility (if not a probability) a second thought?

We have to conclude that the king—if indeed one of these early pyramids was to be used as his tomb—would indeed have been fully aware of the danger his mortal remains would have faced from his own people, especially so from those actually designated to guard the tomb, and would further have known that a massive stone pyramid would offer little protection to a skilled and determined robber. The king would have learned of this particular danger—if by no other means—from all the other tomb robberies that would undoubtedly have occurred throughout the kingdom, were they pyramid, mastaba, rock-cut tomb, or otherwise.

And yet, for all this, we are expected to accept that those kings whom conventional wisdom associates with the early giant pyramids insisted on being buried within these structures and that they did so in the full knowledge that their mortal remains would barely be cold before their tomb would be compromised and ransacked and their vital role in the afterlife rendered impossible, thus throwing the kingdom into chaos.

It makes little sense.

Those of a more conventional persuasion will point out that other rulers in other cultures also constructed large tombs that were highly visible (though not to the same degree as the giant pyramids of Egypt), and that these too were robbed. But this is to entirely miss the point and the importance to the ancient Egyptians of

the role their dead king was to play in his afterlife, which—as we know—was to ensure the continued prosperity of the kingdom he left behind. Other cultures had no such role for their departed rulers, and therefore the need to safeguard their remains was in no way comparable to that of the ancient Egyptians, who saw the protection and preservation of the dead king's remains as of paramount importance to ensure the continued viability of the kingdom.

It is a simple truth that the most successful tomb is the tomb that is never discovered. This implies, of course, that the first rule of a successful and permanent burial is to ensure that your tomb is well hidden—not placed in plain sight. As tombs of the kings of ancient Egypt, therefore, massive pyramids would serve only as beacons of madness, and surely we have to consider seriously that these Golden Age structures—all of them—were perhaps built to serve an altogether different and original function that had little to do with the burials of dead kings.

When we think about the later ancient Egyptians, we immediately think of their elaborately painted tombs and coffins, the walls colorfully decorated with funerary texts, hieroglyphics, and descriptive fresco imagery depicting the life of the dead person or pharaoh. However, none of this exists inside any of the numerous chambers of any of the early giant pyramids, nor is there—as stated earlier—a single inscription on any of the so-called sarcophagi within these structures, although we do find funerary inscriptions on sarcophagi within mastaba tombs that are said to be contemporary with the early pyramids.

The traditional view of these massive pyramids makes little sense for the ancient Egyptians to have labored on them for so long and then just to leave them bare and empty with no text or internal embellishments whatsoever—especially so as this is what the ancient Egyptians of later dynasties were renowned for. To emphasize the point, this would seem to indicate that the first very large pyramids of ancient Egypt were perhaps of another age, an age long forgotten, and that these great pyramids perhaps served a different, more practical purpose that did not require the fuss of religious embellishments, a function that may

have been far removed from that of the much smaller pyramids that would come later in ancient Egyptian history.

As we shall see, however, there is another way that these structures can be “read” without the use of conventional language; they are to be understood through some other means. We will discover that there is another narrative in which these early giant pyramids can be perfectly understood and through which their very precise arrangement becomes perfectly clear and unambiguous.

The Body Snatchers (Where Are the Bodies?)

This may come as something of a surprise, but it is a fact that of around 138 or so pyramids in Egypt, not a single pyramid has yielded the mummy of a proven, authentic, original burial of a pharaoh—not one. While a few pyramid structures have indeed yielded mummified remains, like those of the pyramid of the Sixth Dynasty King Merenre, a pyramid at Saqqara, and Menkaure's pyramid (G3) at Giza as well as one of his satellite pyramids (G3b), these are of uncertain origin or are believed to have been the result of intrusive burials from much later periods. And remember also, we are talking here about pyramid structures, which should not be confused with mastabas or the underground rock-cut tombs of the Valley of the Kings, where many royal burials did indeed take place and where the mummified remains of Tutankhamun were found.

Certainly, within a few pyramids some animal bones have been found, while a human foot bone of uncertain origin was found in the Red Pyramid, a thumb bone found in G2 (later proven to be of modern origin—early nineteenth century), and a skull, right arm, and shin bone in the Pyramid of King Unas. And, according to Egyptologist Miroslav Verner's account in The Pyramids (1997), the almost complete mummified remains of a fifty-year-old man were apparently discovered among the debris in the burial chamber of a Fifth Dynasty pyramid at South Saqqara, believed by Verner to be the remains of King Djedkare Isesi.

Curiously, however, the discovery of what Verner claims to be the mummified remains of Djedkare Isesi is not mentioned in Mark Lehner's The Complete Pyramids (1997), which mentions only the discovery of fragments of alabaster and basalt in the "burial chamber" of this pyramid, as well as a faience bead on a gold filament. And there is no evidence available (to date) that will allow us to determine whether this burial—if it did indeed occur—was an original or an intrusive burial, nor, it would seem, have any C14 dating (such as it is) or DNA

tests been done to verify the dating and origins of these remains.

This then represents pretty much the sum total of all human evidence to support the pyramids-as-tombs theory. And what the reader should take particular note of here is that not a single mummy, let alone one proven to be an original burial of an Egyptian king, has ever been recovered from any of the giant Golden Age pyramids—not one.

In their attempts to explain this absence of vital evidence to their tomb theory, Egyptologists assert that tomb raiders must have removed the bodies from the pyramids in remote antiquity. The theory is that the mummified remains would have been removed to recover the precious stones and amulets that were often placed within the mummy's bindings.

On the surface, this seems a perfectly reasonable and plausible explanation for the lack of bodies, until one realizes that there are pyramids such as that of Pharaoh Sekhemkhet at Saqqara that have been entered by modern explorers (Zakaria Goneim in the 1950s),[5] where it is evident that the sarcophagus has never been disturbed by past tomb raiders (small amounts of gold treasure was found in the tomb), yet, when the sarcophagus was opened, no mummified remains were found inside. Again the Egyptologists respond to this by suggesting that the pharaoh in question had perhaps been killed in battle or been eaten by a Nile crocodile. Since the pharaoh's body was never recovered, there were no remains to place in the sarcophagus, and so the unused pyramid effectively served as a cenotaph—a pyramid designed as a tomb but never in fact used as such.

This then raises the obvious question: if the body of the king had been lost, why wouldn't the completed pyramid and its ready-made sarcophagus have been passed on to the next in line to the throne, thereby saving the royal purse the considerable expense and headache of building another pyramid? After all, reburials and intrusive burials were not exactly unheard-of occurrences in

ancient Egypt, as we have already noted.

Again Egyptologists will respond by asserting that there are written papyrus records of the court trials of tomb robbers, all from much later dynasties. What is not clear from such accounts is whether these tomb robbers were robbing burial mounds, mastabas, underground rock-cut tombs—or pyramids. We simply do not know. And even if these robbers were indeed robbing pyramids, it is far from clear which pyramids were being robbed (the early, giant pyramids or the later "imitations") or whether the robbers were robbing tombs of kings or of some wealthy nobles who perhaps regarded themselves as kings and had themselves intrusively buried within pyramids.

Of course, it goes without saying that Egyptologists have little evidence to support their view that the pyramids were robbed of bona fide pharaohs. They merely point to the fact that the vast majority of pyramids are devoid of mummified remains and point to the other fact that there are recorded trials of tomb robbers—and they put two and two together to come up with the pyramid-robbery theory. In short, if there is no evidence, then the evidence must have been removed.

But just how credible is this? We have to concede here that tombs (in whatever form they may have been) would most likely have been robbed in antiquity by desperate individuals, but to assume these ancient records of tomb-robber trials specifically refer to the robbery of the early, giant pyramids is, in our opinion, a huge assumption. These tomb-robber trial records do not mention the form of the tomb that had been robbed, which, as previously stated, could have been a burial mound, a mastaba, an underground rock-cut tomb—or, perhaps, a pyramid. We simply do not know.

It is at this point that those of a conventional mind-set will generally invoke the Ipuwer Papyrus, an ancient Egyptian text (presently held in the Dutch National Museum in Leiden) believed to have been written ca. 2050 BCE by the priest

Ipuwer as incontrovertible evidence that the pyramids were indeed conceived and built as tombs—and picked clean by tomb robbers.

The following is from “The Dialogue of Ipuwer and the Majesty of the Lord of All,” from the Ramesside period:

And look, things are done that have never happened before,

and the Kings begin to be removed by wretches.

[And] look, he who was buried as a Falcon is out on a bier.

What the pyramid hid will be emptied.

And look, the land has begun to be despoiled of kingship,

by a few people who know no counsels.

This ancient text is believed to describe events in Egypt during the period known as the First Intermediate Period (ca. 2200–2050 BCE). This was a period of severe unrest in the kingdom that followed the sudden and somewhat inexplicable collapse of the country. It was a time of great turmoil in the kingdom, as testified by the following phrase from the text:

. . . and the Kings begin to be removed by wretches.

[And] look, he who was buried as a Falcon is out on a bier.

What the pyramid hid will be emptied.

As stated, this text is regarded by mainstream opinion as clear evidence that the pyramids were conceived and built as tombs for the pharaohs, since it would seem that this passage makes reference to the kings being removed from their tombs—at least, this is how some mainstream scholars interpret this passage. A cursory glance at the text makes this conclusion seem perfectly reasonable. However, upon closer scrutiny, we find that there are other ways this text could reasonably be interpreted. The text actually raises more questions than it answers, and it is far from compelling proof of the tomb theory with particular regard to the early, giant pyramids, as we shall now see.

In consideration of the first part of the text, kings being “removed by wretches,” we are compelled to ask, removed from what? Mastaba? Rock-cut tomb? Pyramid? Indeed, the text in this line does not even mention “tomb” at all, which leaves us to speculate further still that this particular phrase could just as easily be referring to the fact that the true kings of the royal bloodline were being usurped by “wretches” and were being removed from their thrones as opposed to their tombs.

This was the time of chaos and political turmoil in ancient Egypt that spawned the phrase “seventy kings in seventy days.” In that context, this interpretation of this particular phrase of the text is equally valid.

With regard to the next passage of this text, “he who was buried as a Falcon [a king] is out on a bier,” we are compelled to ask even more questions. First of all, the text here does not explicitly state that “he who was buried as a Falcon” was, in fact, buried within a pyramid. Second, the passage could equally be referring to the manner in which former true kings were buried, with due reverence and all the pomp and circumstance associated with such an occasion, while the usurper kings of this chaotic period were merely put “out on a bier”—that is to say, they did not receive the same state burial as former true kings. Hence this passage could be read thus: “He who [was once] buried as a Falcon is [now simply] out on a bier.”

The lack of reverence for the king’s burial in this period would be perfectly understandable if the king was not, in fact, held by the priesthood or the populace as their true king but as a usurper. As such, it can be argued that being “buried as a Falcon” was the birthright of true kings, while being “out on a bier” was the fate of usurpers.

Alternatively, this particular line might also be interpreted as speaking of those being buried as a king, that is, being buried like a king. The inference is clear; whoever was being buried was not, in fact, a true king, a true “Falcon.” They were merely being buried like a king—in imitation. Once again we are presented with the possibility that this text is referring to the usurpers of this period who regarded themselves as kings (though they were not true Horus kings—Falcons—of the royal bloodline) and had themselves buried as kings (perhaps even intrusively buried within pyramids) and that they were perhaps later thrown “out on a bier”?

The later piece of text, “What the pyramid hid will be emptied,” does not explicitly state that the king was removed from the pyramid. In our view—as alluded to earlier in this chapter—there was indeed something hidden within the early, giant pyramids, something that was infinitely more important and valuable to the population than the remains of a dead king. Indeed, during this period of great turmoil in ancient Egypt, it makes perfect sense in the context of our

hypothesis that the pyramids would indeed have been emptied at this time “of what they hid.” We will discuss this more fully in later chapters.

In consideration of the above analysis, it has to be said that the Ipuwer Papyrus is far from conclusive in proving that the early, giant pyramids of ancient Egypt were originally conceived and built as tombs, although, as stated, we do not discount the possibility (if not indeed the probability) that some may well have been appropriated by the kings of later dynasties as tombs. But we maintain that this probably was not the true and original function of the first giant pyramids—later pyramids perhaps, but not the first pyramids.

And so, regardless of the meager, ambiguous, and somewhat contradictory evidence that is available, Egyptologists will not be shaken from the view that most of the early giant pyramids, including those at Giza, were constructed for the purpose of burial; they simply will not entertain the possibility (if indeed the probability) that these pyramids and the so-called sarcophagi they contain—unlike later pyramids—were built not for the purposes of a tomb but for an altogether different and more important reason, as touched on earlier.

It has often been said that when a theory has to find some means or explanation to continually “plug the holes,” this is often a sure sign that the theory itself is fundamentally flawed, if not entirely wrong. There is no reason such a rationale should not be applied to the prevailing opinion of Egyptologists with regard to the theory of pyramids as tombs and tombs only.

So, while there is a significant evidence gap in the orthodox theory that most pyramids—including the very first pyramids—were built for the sole purpose of serving as tombs, we subscribe to the idea that the earliest giant pyramids were likely to have been conceived and built at an earlier time (perhaps during an earlier Golden Age of the Egyptian civilization) for a purpose far removed from the burial of a king, although we must acknowledge the possibility, if not indeed the probability, that some (if not all) of these early pyramids may well have been

appropriated at a later date by various kings (somewhat naively) for the purposes of (intrusive) burials.

One Pharaoh, Four Pyramids

The earliest pyramids of ancient Egypt include not only the three great pyramids of Giza but also another set of three very large pyramids that were built just prior to those at Giza. These pyramids include the now largely collapsed pyramid at Meidum, the Bent Pyramid at Dahshur, and the Red Pyramid at North Dahshur. However, unlike the three very large pyramids of Giza—considered by conventional thought to have been built by three kings of the Fourth Dynasty—these three large pyramids are believed to have been built by just one king, the ancient Egyptian King Sneferu (believed to have been Khufu's father), who is also thought to have constructed a fourth, smaller step pyramid at Seila (which had no internal or underground burial chamber).

If, then, as Egyptologists assert, the function of these early colossal pyramids was to serve as the eternal tombs of the pharaohs, why do we find that Sneferu apparently constructed a total of four pyramids, with three very large pyramids, as noted previously? Does this seem logical, to have so many tombs (with their numerous chambers) to inter just one body?

It is assumed by Egyptologists (without any evidence) that Sneferu desired—right from the outset of his pyramid-building activity—to build himself a true pyramid and that he continued building pyramids until he eventually succeeded in that goal. They believe (without any hard evidence to support their contention) that a true pyramid was Sneferu's ultimate objective, and they assert this purely on the basis that Sneferu did not build any more pyramids after he successfully completed the construction of the Red Pyramid, the world's first true pyramid.

Of course, the fact that Sneferu died shortly after the completion of his first true pyramid means that he could not have constructed any more pyramids even if he

had planned to; we will simply never know. So, how do we know that it was not actually Sneferu's intention right from the outset of his pyramid-building activity to simply build as many pyramids in his lifetime as he possibly could? The logic of conventional thinking would have us believe that if—hypothetically—Sneferu had died after completing his famous Bent Pyramid, Egyptologists would have then asserted that this peculiar pyramid had been Sneferu's goal from the outset and that the two previous pyramids he had built were merely failed attempts at building the Bent Pyramid. The simple truth of the matter is this: we simply cannot know how many more pyramids Sneferu may have gone on to build had he lived long enough after the completion of his true Red Pyramid.

It was once the view of most Egyptologists—again with little evidence—that the pyramid of Meidum, with its sole unfinished chamber, had collapsed during or shortly after its construction and that this was the reason why Sneferu decided to go on and build a second pyramid that became known as the Bent Pyramid. However, given that no Fourth Dynasty "ropes, timbers or workers' bodies" have ever been recovered from under the debris around this pyramid, Egyptologists have been forced to accept that the collapse of this pyramid occurred some time after Sneferu's death and not before it, as was once commonly believed.

In addition, New Kingdom graffiti have been found under the debris of the largely collapsed pyramid of Meidum—a fact first pointed out by independent researcher and writer Alan Alford—again forcing Egyptologists to abandon their previously held view and accept that the collapse of this pyramid occurred some time after Sneferu's death. Furthermore, quarry marks found on a number of casing stones of the Meidum and Red pyramids seem to indicate a concurrent construction of both these structures. Indeed, it is known that Sneferu later returned to his Meidum pyramid and converted it from a step pyramid into a true pyramid. American Egyptologist Dr. Mark Lehner writes:

Today Meidum [pyramid] consists of a three-stepped tower rising above a sloping mound of debris. The usual assumption is that the tower was left after the outer casing and packing that filled in the steps was quarried away. Indeed,

Flinders Petrie recorded that the pyramid was still exploited as a quarry in his day. An alternative, and controversial, suggestion was that the tower and debris resulted from the collapse of the pyramid while it was under construction. Excavations, however, have now cleared away a large part of the debris and recovered various later remains but no 4th-dynasty ropes, timbers or workers' bodies—discounting the theory of a sudden collapse.[6]

We are perfectly entitled to ask the question, then, If Sneferu already had a viable pyramid at Meidum for his tomb (assuming, of course, that he was building a tomb), why did he feel it necessary to continue building more pyramids, more tombs?

Sneferu's next pyramid, the famous Bent Pyramid at Dahshur, presents no less a puzzle. Why build this pyramid at all when Sneferu apparently already had a perfectly viable pyramid (tomb) at Meidum—not initially a true pyramid, but a pyramid nonetheless? And if Sneferu had indeed desired a true pyramid as his tomb, why not at this point simply remodel Meidum into a true pyramid (which he later did)? Alternatively, why not simply dismantle the Meidum pyramid completely and reuse its quarried blocks in a new pyramid, thereby saving the royal purse considerable additional quarrying expense? Perhaps, however—as some have suggested—the Meidum pyramid was kept intact as a backup tomb should the king have died before successfully achieving his ultimate goal of building a true pyramid. Well, let's see.

It seems that the pharaoh's architects, in consideration of the angle of slope of the Bent Pyramid, apparently decided that it was much too steep and that the structure would likely collapse under its own weight should they continue to build the pyramid at such a steep incline; so, in view of this, they apparently decided to modify the slope angle of the upper third of the structure in order to ensure the pyramid's safe completion.

Of course, one might ask the very obvious question, If Sneferu was so unhappy

with this changed angle (as seems patently evident by his decision to go on and construct yet another pyramid), why continue to finish this flawed pyramid, with its changed slope angle? Indeed, why continue to clad this pyramid with casing stones, why build an enclosure wall as well as a mortuary chapel, a valley temple, and other associated structures? Why not save time, resources, and undoubtedly workers' lives by simply abandoning this pyramid at its point of failure in favor of a new structure with a less steep slope (which he eventually did with his final construction, the Red Pyramid)?

This failed pyramid could have easily been stripped down and its quarried blocks reused for the new construction, since Sneferu at this point already had a backup pyramid (the Meidum structure) in place, so he had no reason whatsoever to continue to complete the Bent Pyramid long after its point of failure had become evident. And yet Sneferu went on and completed the failed Bent Pyramid. Why?

Once again, the conventional explanation for this particular action of Sneferu makes little sense. In the Bent Pyramid, Sneferu had—once again—apparently completed a funerary edifice that he would never use. The consensus among Egyptologists is that the Bent Pyramid would have served as a backup tomb (even though he already had Meidum serving in this role—a backup to the backup) should Sneferu have failed to complete his alleged goal of achieving a true pyramid.

But if this was so then one must question the view that Sneferu was at all determined to have a true pyramid as his tomb, since to be prepared to settle for the flawed Bent Pyramid as his tomb surely must call into question Sneferu's ultimate objective of wishing to have a true pyramid as his tomb, as proposed by mainstream opinion.

Although no mummy has ever been recovered, the common consensus among Egyptologists is that the pharaoh Sneferu was interred in his final pyramid, the Red Pyramid at Dahshur. Oddly, however, no causeway or valley temple has

ever been found connected to this pyramid—an essential royal funerary requirement—which would seem to indicate that even Sneferu's final pyramid construction may not have been his final resting place. Although, as has been stated earlier, a foot bone of unknown origin was found in this pyramid that may offer some evidence of a burial of some kind—original or intrusive—having taken place within this structure at some point in the ancient past.

What seems reasonably clear from the actions of Sneferu, as outlined above, is that—right from the outset—it seems that he fully intended to complete the construction of several pyramid structures. Which raises the question, Why on Earth would Sneferu wish to fully complete (or almost fully complete) four pyramid structures, most with more than one chamber? Could his motivation simply have been—as briefly mentioned earlier—to learn how to build a very large, stable structure (which would naturally have to take the form of a pyramid) as part of a learning curve toward implementing a grand plan that would culminate with the implementation of the pyramids we now find at Giza? And is it mere coincidence that upon completion of the world's first true pyramid, the Red Pyramid at Dahshur (having finally learned how to build very large, stable structures), this was immediately followed by the construction of the pyramids at Giza, a site that, as we shall shortly see, clearly demonstrates a preconceived, unified, homogenous design?

In acceptance of the achievement of Sneferu's multiple pyramids and their various chambers, it seems that we must, once again, seriously question the premise that the very large pyramids of ancient Egypt—attributed by Egyptologists to the Old Kingdom period—were originally intended as tombs.

Sneferu, who is credited with the construction of up to four pyramids, could only be interred in one chamber in one pyramid, so why complete all these pyramids with their multiple chambers? Conventional thought labels Sneferu's superfluous pyramids as cenotaphs (pyramids built as tombs but not used as tombs) and does so largely on the circular reasoning that only one such structure could in fact have been used as the king's tomb, hence all others else must have been built as

nothing more than cenotaphs.

All of this makes little sense unless—as we suggest—Sneferu's frenetic pyramid-building activity was actually part of a long-term project, the goal of which was to learn how to construct and build very large, stable, and durable structures as part of a learning curve before ultimately implementing the key element of a grand plan: a national recovery system and an astronomical calendar at Giza.

But these are not the only anomalies we find with the conventional tomb theory, specifically as it applies to the very large pyramids of ancient Egypt.

One Pharaoh, Three Chambers

Prior to the construction of the Eiffel Tower, which was completed in 1889, the Great Pyramid at Giza stood as the tallest man-made structure on Earth. As stated, conventional thought regards the Great Pyramid as the tomb of Khufu, believed by orthodox Egyptologists to have been the second king of the Fourth Dynasty ca. 2550 BCE; although, as stated previously, no mortal remains have ever been found inside this pyramid, and it would seem from ancient records that there are no signs of any burial ever having taken place in any of this pyramid's three known chambers.

The Great Pyramid of Giza truly must stand as the most unusual and spectacular of all the achievements in the history of humankind and would be matched only in much later Egyptian dynasties by the extravagancies of Ramesses the Great. One of this pyramid's most unusual features is that it incorporates three "burial chambers": (1) the Subterranean Chamber dug deep into the bedrock some 100 feet below the base of the pyramid; (2) the so-called Queen's Chamber some 70 feet above ground in the pyramid's superstructure; and finally (3) the King's Chamber, constructed some 140 feet above ground and also within the body of the pyramid (figure 2.3).

It is now generally agreed among Egyptologists that the erroneously named Queen's Chamber was not, in fact, intended for the burial of Khufu's queen (of which he had several) but was perhaps intended as a standby chamber should Khufu have died early in his reign. In the event of such an occurrence, it is asserted that Khufu would have been interred in the lowest Subterranean Chamber, and as his reign continued and his pyramid rose in height from the desert sands, he would have been interred in the second, so-called Queen's Chamber had he died after completion of that chamber, and finally, should he have survived until the completion of his pyramid, he would have been laid to rest in the third, uppermost King's Chamber. All this sounds feasible enough

until one begins to look a little closer.

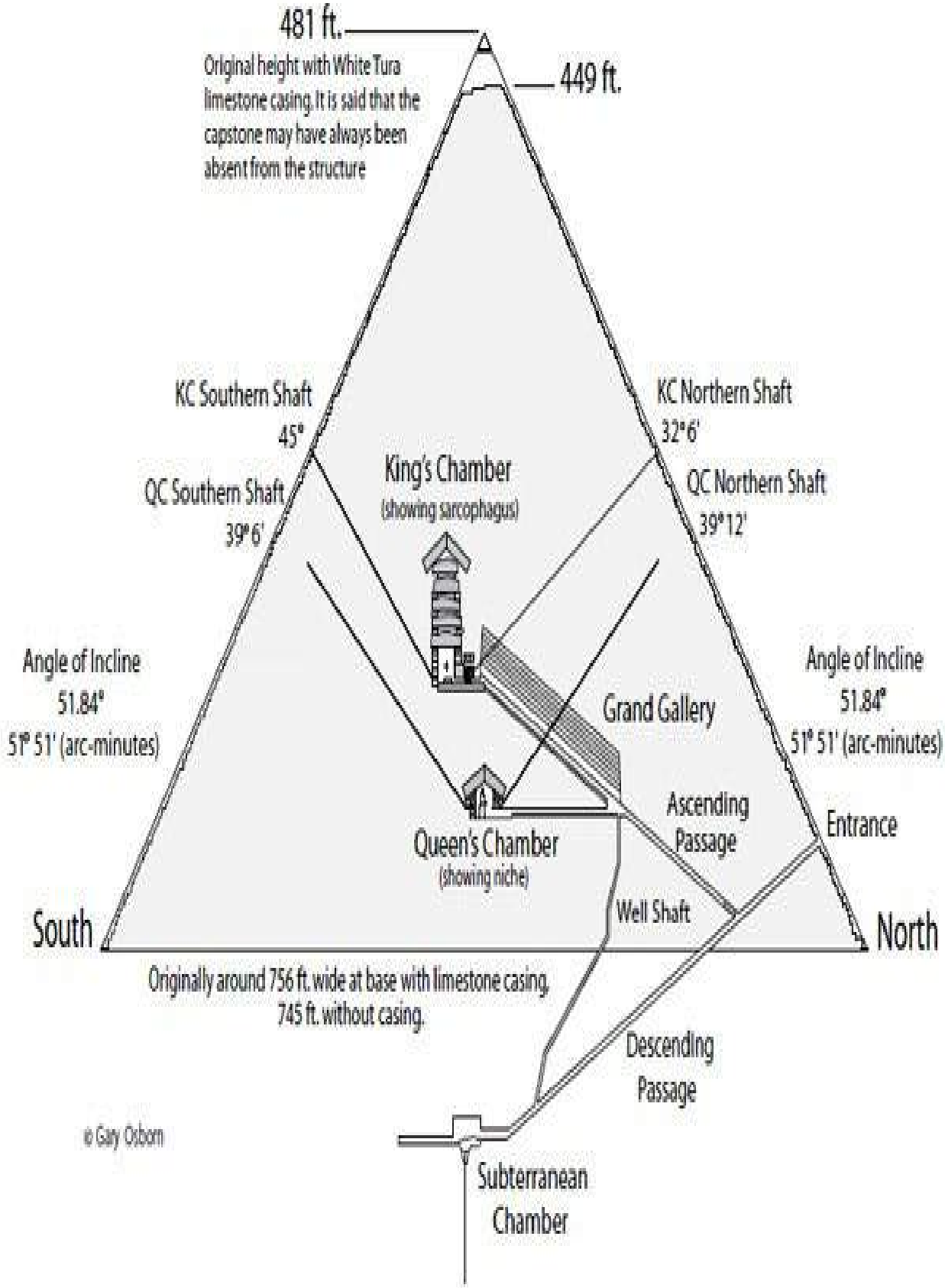

481 ft.
Original height with White Tura limestone casing. It is said that the capstone may have always been absent from the structure
449 ft.
KC Southern Shaft
45°
KC Northern Shaft
32°6'
King's Chamber
(showing sarcophagus)
QC Southern Shaft
39°6'
QC Northern Shaft
39°12'
Angle of Incline
51.84°
51° 51' (arc-minutes)
Angle of Incline
51.84°
51° 51' (arc-minutes)
Grand Gallery
Ascending Passage
Entrance
Queen's Chamber
(showing niche)
Well Shaft
South
North
Originally around 756 ft. wide at base with limestone casing. 745 ft. without casing.
Descending Passage
© Gary Osborn
Subterranean Chamber

Figure 2.3. The Great Pyramid and its three chambers (drawing to scale)

The ceiling, floor, and walls of the King's Chamber are lined with the most exquisite red granite. Not so the first or second chambers, which present only rough limestone constructions. One immediately has to ask, then, if the first and second chambers were to be Khufu's burial chamber in the event of his early demise, why not finish these chambers to the same high standard that we find in the third chamber? After all, once the gabled roof of the second chamber was set in place, it would not have been possible to lower granite lining slabs (or, indeed, a sarcophagus) into the chamber, and it would be several years' work before even the base of the third chamber would have commenced, let alone finished. Of course, the absence of a sarcophagus in both the first and second chambers is attributed to theft in antiquity: the sarcophagus in these chambers would have been smashed to pieces and the fragments taken as souvenirs. One has to ask, then, if that were so, why not also take the empty sarcophagus in the King's Chamber, which remains evident (and empty) to this day?

We must also ask that in sealing the second chamber in such an unfinished state, were the ancient Egyptians so certain that the king would live long enough for his main chamber to be completed in time? Did it even matter to them? Put it this way—had the king died just before work commenced on the final, uppermost chamber, he would have been laid to rest in a chamber (apparently with no sarcophagus) that in no way expressed the grand ideals so stunningly exemplified in the upper King's Chamber. Furthermore, he would have been interred in a chamber that would only have been secured by granite plugs far below in the Ascending Passage, whereas the final, upper chamber entrance (according to conventional thought) was apparently sealed with three heavy portcullis slabs in a small Antechamber. Why no Antechamber for the so-called Queen's Chamber, if this was to have been the king's burial chamber upon an early demise? We will discuss the implication of this aspect of the Great Pyramid later.

What is also easily observed from the geometry of the Great Pyramid is that even when the King's Chamber had been completed, the builders continued to build aspects of the lower Queen's Chamber, the so-called airshafts, layer by painstaking layer. Why? Why continue to build features of the so-called standby burial chamber when the main chamber had already been sealed with a granite roof, that is, when the final chamber was effectively complete?

Furthermore, as a cursory glance at the shafts in the second and third chambers reveals (figure 2.3), their angles of inclination are quite different. If, as the prevailing view asserts, these shafts served as conduits to guide the pharaoh's soul—his Ba—to its heavenly destination among the stars, why change the stellar destination? This is to say that the different angles of inclination we observe in the two sets of shafts from these two chambers would have sent the king's soul to completely different stellar destinations. Did the king change the stellar destination of his Ba, thereby requiring a change in the angle of the shafts? Also, when first looking at this soul-shaft theory, it is immediately apparent that the two sets of shafts actually oppose the logic of this idea, as they imply that the king's soul would be divided into four parts in order to ascend through each of the four shafts, which is a quite absurd notion. Can these enigmatic shafts with their different angles of inclination be explained in any other rational way? They can, and we will come to this later.

What seems reasonably clear to us is that the so-called Queen's Chamber and the Subterranean Chamber (which is in an even more primitive state) were never intended as burial chambers for Khufu (or anyone). We have to ask, then, if these two chambers were never intended to hold any remains should the king have died prematurely in his reign, why should it be assumed that the main King's Chamber should be any different?

Queens' Tombs?

Let us now turn our attention to the so-called Queens' Pyramids that are the supposed tombs for the pharaoh's queens. Is the conventional tomb theory any clearer with an examination of these structures at Giza? The answer, once again, is an emphatic no. Just as with the main giant pyramids, there have been no mummified remains of any original burial found in any of the so-called Queens' Pyramids at Giza. Certainly some mummified remains have been found in Menkaure's pyramid at Giza and also in one of the Queens' Pyramids of Menkaure (G3), but—as stated earlier—these have been found to be from intrusive burials from later periods.

What seems even more puzzling is that, while most pharaohs of the Old Kingdom period had at least one queen, not all of them, apparently, saw any need to build pyramids for their queens (assuming here, of course, that the kings of this period were the actual builders of the giant pyramids, as conventional thought maintains). This peculiar situation is most easily observed at Giza, where the purported owner of the first Great Pyramid (G1) and the owner of the third and smallest pyramid (G3) are both believed to have constructed three queens' pyramids each. The purported owner of the second Giza pyramid (G2) had more known queens than both his predecessor and his successor combined (five in all), yet, for some inexplicable reason, did not see fit to build a single pyramid for any of his queens, as is easily observed in figure 2.4.

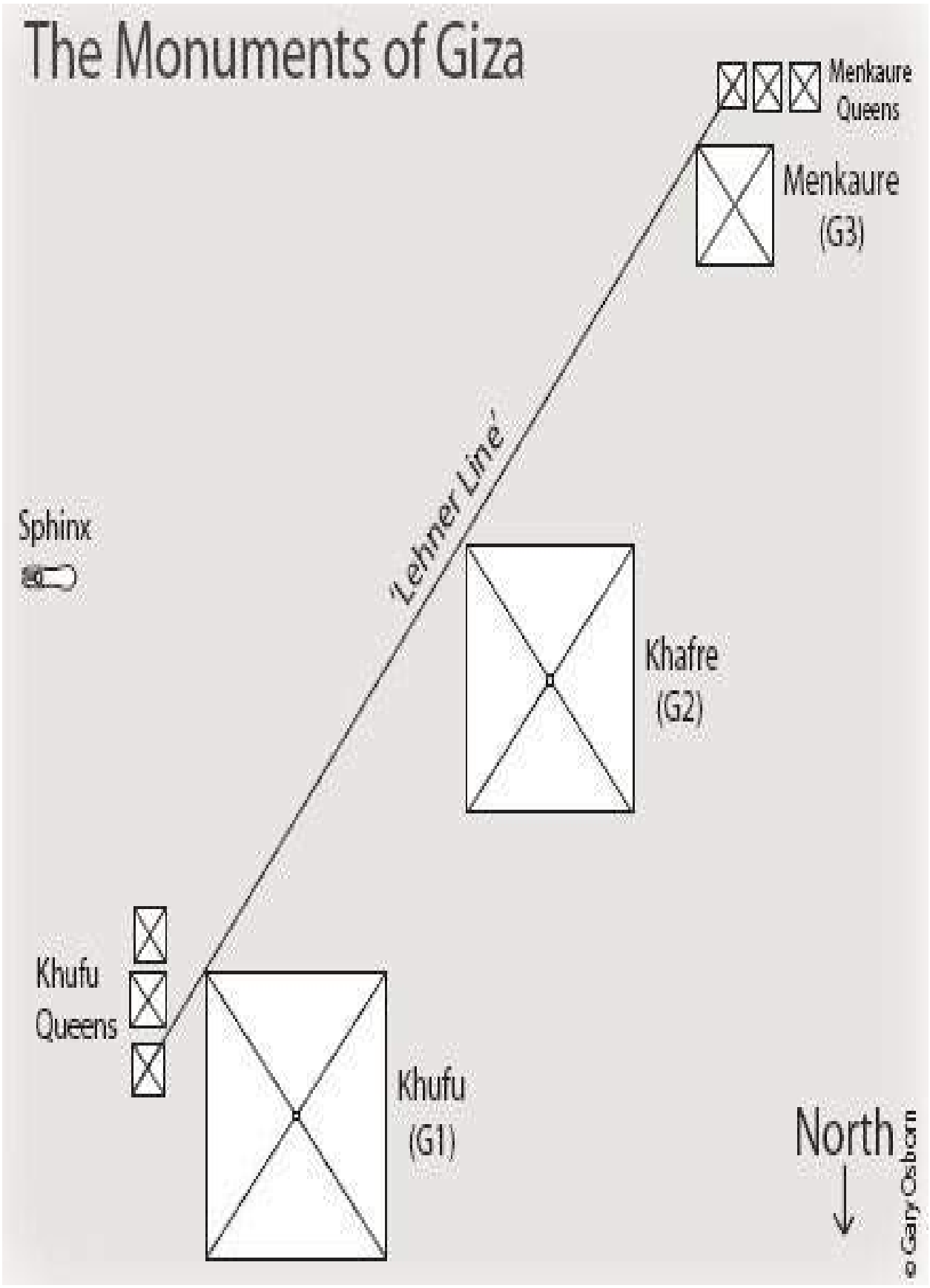

The Monuments of Giza
Menkaure
Queens
Menkaure
(G3)
'Lehner Line'
Sphinx
Khafre
(G2)
Khufu
Queens
Khufu
(G1)
North
© Gary Osborn

Figure 2.4. The Giza pyramids with their Queens' Pyramids. Note: Khafre (Rachaf) (G2) has no queens' pyramids.

Why should this be? Is there any logic to this? As the thesis of this book unfolds, we will see that there is an entirely logical, rational, and consistent reason for this arrangement of the structures we find at Giza and for why there are no so-called queens' pyramids beside pyramid G2, the pyramid that conventional thought attributes to the Old Kingdom Pharaoh Rachaf (Khafre). Suffice it to say, however, this reason runs entirely contrary to the conventional view of these structures.

Pathways to the Stars

What can also be immediately observed from figure 2.4 is the NE/SW diagonal arrangement of the three giant pyramids at Giza. It is the orthodox view that this arrangement of the main pyramids would have offered the three Old Kingdom kings associated with these structures an unobstructed path (or clearway) to the stars of the northern and southern skies (of the Northern Hemisphere), the place conventional thought tells us the ancient Egyptian kings believed their souls would ascend to—Osiris (Orion/Sah) in the southern sky and the circumpolar stars (known as the Imperishable Ones because they never set) in the northern sky.

However, if this were the underlying rationale for arranging the main pyramids in this diagonal fashion, why would Menkaure (assuming it was Menkaure who built the third large pyramid at Giza) obstruct the path to the stars on the southern side of his pyramid by building his three Queens' Pyramids across its southern flank? And why build pyramids for the queens that also do not have an unobstructed path to the northern and southern skies?

Why construct pyramids for the queens where the path to the stars of the northern and southern skies is either blocked by each other or by another pyramid (G3)? Was it the case that these two Old Kingdom kings, while apparently happy enough to construct three pyramids for three of their wives, did not actually wish for the souls of their queens to ascend and join with them in the afterlife and sought to prevent this from occurring by ensuring there was no clear view of the northern and southern skies?

Quite simply, if these two kings built these pyramids for the purposes of tombs and felt it important enough to construct pyramid tombs for their wives, surely it stands to reason that they would also have wished for their wives to join with

them as Isis (consort of Osiris, symbolized by the star Sirius) in the heavenly afterlife? Surely they would have ensured that their Queens' Pyramids were arranged in such a diagonal manner (as with the main Giza pyramids) that these structures would also have had the benefit of a clear and unobstructed pathway to the stars.

It simply does not stack up. This cannot be the reason why the three Great Pyramids at Giza are aligned along this NE/SW diagonal known as the Lehner line (figure 2.4). Nevertheless, this arrangement of the giant Giza pyramids and their Queens' Pyramids does indeed serve a very specific purpose that is vital to understanding The Giza Prophecy, as we shall see in due course.

The Inscription, the Stele, and the Carbon Dating

As stated above, Egyptologists inform us that the three giant pyramids of Giza (as with every other Egyptian pyramid) were constructed as the eternal tombs for three kings of the Fourth Dynasty and that each of these kings laid out his pyramid complex with little or no regard to what had gone before or, indeed, would come after.

We have already demonstrated how there is considerable contradictory evidence that the structures at Giza were ever intended as tombs. Egyptologists, however, maintain that there are three key pieces of evidence that directly connect the Giza pyramids with the kings of the Fourth Dynasty to whom their construction is traditionally attributed. This evidence is regarded as something of a cornerstone of the conventional chronology of the Giza pyramids and is used to firmly place the Giza pyramids within the time frame of ca. 2550 to 2450 BCE. So what is the nature of this evidence and exactly how conclusive is it? Well, let us now take a look.

Within various tombs and chapels close to the Great Pyramid, there are a number of inscriptions that apparently identify Khufu as the reigning pharaoh. Egyptologists use these inscriptions along with the discovery of Khufu's name within a hidden chamber of the Great Pyramid itself as conclusive evidence that the construction of the Great Pyramid was commissioned by Khufu ca. 2550 BCE. We will consider this in greater detail shortly.

There is also the Inventory Stele, an inscribed rectangular stone discovered in 1857 by the French scholar and Egyptologist Auguste Mariette to the east of the Great Pyramid, which also suggests that Khufu "built his pyramid"—that is, the Great Pyramid (and, curiously, restored the Sphinx). Although this stele has been dated to around 500 BCE (about 2,000 years after the Old Kingdom period), it is

likely that it is but a copy of an original stele that existed in much earlier times. From the Inventory Stele we have this intriguing and somewhat controversial passage.

Long live the Mezer, the King of Upper and Lower Egypt, Khufu, given life.

He made for his Mother, Isis, the Divine Mother, Mistress of the Western Mountain, a decree made on a stela; he gave to her a new divine offering, and he built her temple of stone, renewing what he had found, namely these gods in her place.

Live Horus, the Mezer, the King of Upper and Lower Egypt, Khufu, given life. He found the house of Isis, Mistress of the Pyramid, by the side of the hollow of Hwran [the Sphinx] . . . and he built his pyramid beside the temple of this goddess and he built a pyramid for the King's daughter Henutsen beside this temple.

The place of Hwran Horemakhet is on the South side of the House of Isis, Mistress of the pyramid and on the north of Osiris, Lord of Rostaw. The plans of the Image of Hor-em-akhet were brought in order to bring to revision the sayings of the disposition of the Image of the Very Redoubtable.

He restored the statue all covered in painting, of the Guardian of the Atmosphere, who guides the winds with his gaze. He made to quarry the hind part of the nemes headdress, which was lacking, from gilded stone, and which had a length of about 7 ells (3.70 metres).

He came to make a tour, in order to see the thunderbolt, which stands in the

Place of the Sycamore, so named because of a great sycamore, whose branches were struck when the Lord of Heaven descended upon the place of Hor-em-akhet, and also this image, retracing the erasure according to the above-mentioned disposition. . . .

The figure of this God, being cut in stone, is solid, and will last to eternity, having always its face Regarding the Orient[7]

It seems that the Inventory Stele may actually commemorate the construction of Khufu's pyramid in addition to the maintenance and repair works he carried out to various other structures within the Giza complex. Specifically named are the Temple of Isis and the Sphinx, which, of course, clearly implies that, contrary to mainstream opinion, the cult of Osiris and Isis was very important (Isis is referred to as a goddess) as early as the Fourth Dynasty (if not before).

The Sphinx, traditionally attributed to Rachaf (Khafre) by Egyptologists, could not have been crafted by this king, since it seemingly already existed in the time of his predecessor, Khufu (who apparently had it repaired). Furthermore, the text implies that the Sphinx must already have been of great age, since it required restoration work carried out by Khufu.

The Inventory Stele further informs us that Khufu "made offering anew, and built again her temple of stone." As stated, this seems to imply that there existed in the time of Khufu a "Temple of Isis" that Khufu reputedly restored. Many writers of alternative history have suggested that this Temple of Isis may actually be a reference to the Great Pyramid itself. While this is not entirely impossible, we take the view that it is unlikely, since the Inventory Stele clearly makes the distinction between Khufu building "his pyramid" (as well as a pyramid for his daughter) and Khufu restoring a "temple" (of Isis).

Assuming for a moment, however, that the Temple of Isis actually was referring to the Great Pyramid (that is, Isis as “Mistress of the Pyramid”), such an assertion would of course be highly controversial and contentious, since it clearly would imply that Khufu did not build the Great Pyramid but merely discovered it already in a ruinous state and set about making reparations to it.

If that was true, it might well explain why Egyptologists prefer to simply dismiss the Inventory Stele as—in the words of researcher and writer Paul Jordan—a “pious fraud” created by the Saite priests of the Twenty-Sixth Dynasty, inferring that the great passage of time between the stele’s Late Period manufacture and the much earlier events it relates somehow affected the accuracy of the stele’s description of those events.

However, the Inventory Stele—as mentioned above—describes Khufu as having made repairs to the Nemes headdress of the Sphinx. In the 1930s, when Egyptologist Professor Selim Hassan was clearing away the sands that had long since engulfed the Sphinx, he discovered that such ancient repairs had indeed been made to the head of the Sphinx and that the dimensions of the repair work he observed closely matched the dimensions stated in the Inventory Stele, around 3.7 meters. Hassan also noted that a sycamore tree was growing slightly to the south of the Sphinx and, given that these trees can live for thousands of years, surmised that it may have been an offshoot of the original sycamore mentioned in the Inventory Stele that had been struck with a bolt of lightning. Fragments of ancient paint (mentioned in the Inventory Stele) have also been found on the side of the Sphinx’s head. So it seems that—far from being a “pious fraud”—the Inventory Stele clearly speaks of events of proven historical fact, and this must surely confer credibility on the text of the Inventory Stele as a whole.

Additionally, dismissing the content of the Inventory Stele as a “pious fraud” seems somewhat peculiar given that the same scholars are quite happy to accept the text of the so-called Dream Stele that allegedly identifies Rachaf ’s hand in carving the Sphinx, a stele that—just like the Inventory Stele—was crafted long

after (about 1,000 years) the events it relates. One has to ask, why should we not also consider the Dream Stele a “pious fraud”?

So, according to the Inventory Stele, it appears that Khufu undertook the construction of one pyramid (presumably the Great Pyramid) and another, apparently for his daughter. He also seems to have made repairs to the Sphinx and to the Temple of Isis. Given this evidence of a possible Khufu hand in the construction of the Great Pyramid, it seems somewhat odd that most Egyptologists should dismiss the Inventory Stele as a “pious fraud,” especially when there is corroborating evidence of ancient repairs having been made to the Sphinx that testifies to the veracity of the text. Why should this be?

Well, as briefly mentioned, just as contentious (if not more so) is the Inventory Stele’s very mention of the name Isis (consort of the ancient Egyptian god Osiris, who is also mentioned in the stele) and the fact that she was recognized at this early Fourth Dynasty date as a goddess. If the Inventory Stele is indeed a copy of an original stele from a much earlier dynastic (or even predynastic) period, then it goes pretty much against conventional opinion to have Isis popping up as a fully formed goddess in such an early text, the conventional view being that the first attested reference to Osiris and Isis as god and goddess dates only from the Pyramid Texts of the later Fifth Dynasty, found in the Pyramid of King Unas.

The prevailing mainstream consensus is that the ancient Egyptian god Osiris was the god of regeneration and rebirth, and his stellar association was with the Orion (Sah) constellation. Indeed, numerous ancient Egyptian texts—as pointed out by Bauval, Gilbert, and Hancock—make clear references to the association between the regeneration god Osiris and the Orion constellation. However, even this evidence has not persuaded hidebound Egyptologists of the veracity of the Giza-Orion connection; they insist that these Pyramid Texts indicating an Osiris-Orion association arose much later in the Fifth Dynasty and, therefore, could not have influenced the fairly obvious Orion-belt similarity of the Giza pyramid layout. The Giza-Orion concordance, they assert, is nothing more than a

coincidence.

But then, this depends on whom one consults. While this may remain the view of many hidebound Egyptologists, there are a number of eminent Egyptologists who take a quite different view. J. G. Griffiths has this to say:

While there is every likelihood that the Osirian material in the Pyramid Texts derives in part from a much earlier date, so far it has not proved possible to track down the god or his symbols tangibly to the First or Second dynasty.[8] (emphasis added)

Although there is a strong likelihood that the cult of Osiris began in or before the First Dynasty in connection with the royal funerals at Abydos, archaeological evidence hitherto does not tangibly date the cult to an era before the Fifth Dynasty.[9] (emphasis added)

The eminent Egyptologist Walter B. Emery further tells us:

The myth of Osiris seems to be an echo of long forgotten events which actually took place.[10]

And Jane B. Sellers has this to say:

Much points to the conclusion that Osiris's story was cloaked in the veil of distant antiquity even at this [Fifth Dynasty] early date. The discovery at Helwan of a very early Djed symbol and the "girdle of Isis" (Isis being his female

counterpart) shows that during the Archaic Period (Dynasty 1 and 2) Osiris's cult already existed.[11] (emphasis added)

The final word on this issue must go to the renowned British Egyptologist Sir I. E. S. Edwards, who, in a letter to Robert Bauval, wrote:

The Orion's Belt stars were an important element in the orientation of the Great Pyramids.[12]

It would seem, then, on the consensus of the eminent scholars of ancient Egyptian history quoted above, that there is indeed every reason to consider that Osiris (as personified by the constellation of Orion) may indeed have been an important ancient Egyptian figure long before the Fifth Dynasty (and perhaps even the entire dynastic period) ever arose, and as such, his stellar counterpart, the constellation of Orion, may well have served as the underlying design imperative for the pyramids at Giza at a much earlier time, as we, and others before us, have proposed. If Osiris was indeed a mortal person who existed long before the rise of dynastic Egypt (as some Egyptologists suggest), and if it was he who created the blueprint for Giza, then he would not have been the first ancient Egyptian architect or designer who was deified long after his death. We are reminded in this regard of Djoser's great architect, Imhotep, whom the reader may recall is credited with having designed and constructed the world's first pyramid (the step pyramid at Saqqara) and, apparently, may have done so using architectural plans that came from or were based on the stars in the heavens.

Now, probably the single most powerful reason that orthodox Egyptologists have for attributing the Great Pyramid's construction to Khufu is that this king's name was found inscribed within a relatively inaccessible area of the Great Pyramid.

Discovered in 1837 by Col. Richard W. Howard-Vyse, the rough "Khufu"

hieroglyphic inscription was found scrawled with red ochre paint in plain view on the underside of a granite gable block in Campbell's Chamber—a so-called relieving chamber high above the King's Chamber of the Great Pyramid and eventually accessible to Howard-Vyse (along with three other relieving chambers) through the liberal use of gunpowder. The rough inscriptions, or "quarry marks," found in this chamber are believed to have been graffiti daubed onto the blocks by the work gangs involved in building the Great Pyramid.

A second cartouche bearing Khufu's name in the form of "Khnum-Khuf " was also found in the chamber below Campbell's Chamber known as Lady Arbuthnot's Chamber (named after the wife of Sir Robert Keith Arbuthnot). There is, however, some controversy as to whether this second cartouche actually refers to Khufu or to some other king.

On the face of it, this evidence would seem to be quite conclusive, proving beyond any reasonable doubt that Khufu was indeed associated with the Great Pyramid and probably its builder. How else could his name have found its way into an area of the Great Pyramid that had been completely sealed since its construction supposedly some 4,500 years ago? Even those who would accuse Howard-Vyse of forging the Khufu inscriptions when he first entered this hidden chamber cannot explain away the other Old Kingdom hieroglyphic markings that run under floor blocks and between block joints where no forger could even remotely have managed to paint them.

However, while it is generally accepted by orthodox scholars and most serious alternative researchers alike that these quarry marks are genuine inscriptions left over from the time of the Great Pyramid's construction, it seems that these inscriptions actually create more problems than they solve and—as we shall see—the case for the construction of the Great Pyramid in the period ca. 2550 BCE is far from clear or conclusive.

In Whose Name?

This may come as something of a surprise (if not a complete shock) for those locked into the conventional view of ancient Egyptian history, but the simple fact is—as we will shortly demonstrate—that, while the name Khufu (as found in Campbell's Chamber) is inextricably connected to the Great Pyramid (most likely as its builder), the name Khufu is categorically not the name that should be associated with the second king of the Fourth Dynasty, a king who apparently lived ca. 2550 BCE. It is our view that the placement of Khufu within this time frame is quite erroneous, as we shall now demonstrate.

The image in figure 2.5 is a drawing of the hieroglyph of "Khufu," an inscription not unlike that discovered by Howard-Vyse painted onto the ceiling of Campbell's Chamber high above the King's Chamber of the Great Pyramid. This symbol (reading from left, since horizontally aligned hieroglyphs are always read from the direction the animal or person is facing, or, when in vertical arrangements, from the top down) is made up of the placenta (or sieve) hieroglyph, a circle with horizontal hatchings (Kh), a quail bird (U), a viper (F), and another quail bird (U)—"Khufu." However, if we now compare this rendering of the name with the hieroglyphic inscription for what is believed to be the name Khufu from the famous Abydos King List in the Temple of Seti I, we find a quite distinct difference.

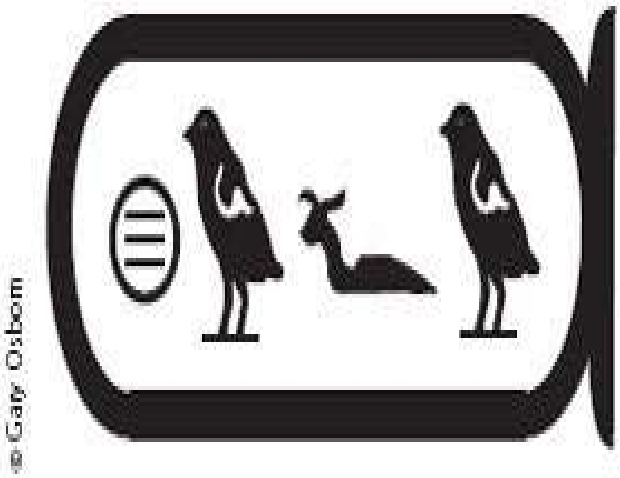


Figure 2.5. "Khufu" (Campbell's Chamber, the Great Pyramid)

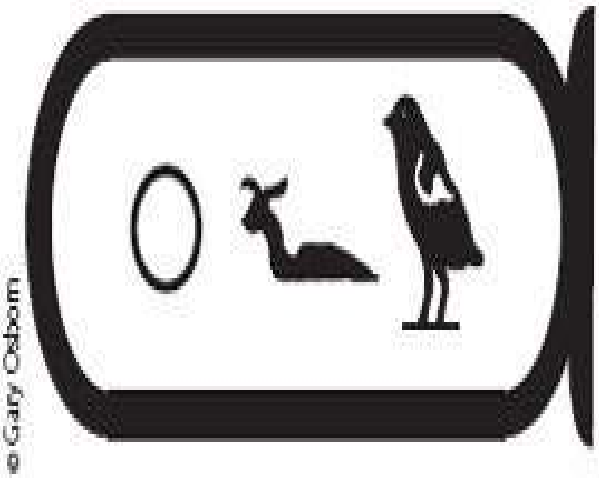


Figure 2.6. Cartouche of "Khufu" as depicted in the Abydos King List

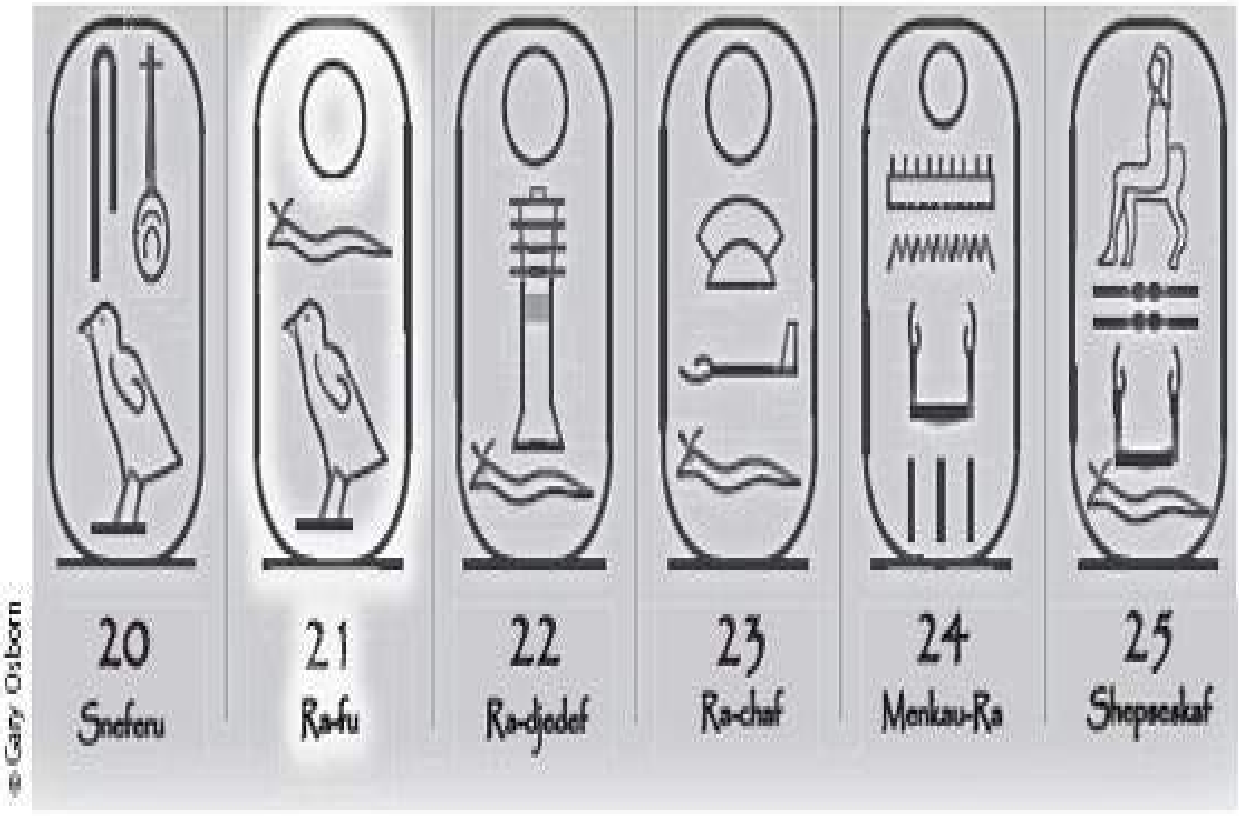


Figure 2.7. Fourth Dynasty pharaohs from the Abydos King List

The inscription in figure 2.6 from the Abydos King List is also said to present the name Khufu, although instead of the first glyph (from left) presenting the placenta (or sieve) glyph (Kh), it presents what appears to be a plain solar disc, the glyph for the ancient Egyptian sun god, Re or Ra—a plain disc glyph that is identical to the plain disc glyph in the other cartouches to the immediate right of this cartouche that are fully accepted by Egyptologists as representing the plain solar disc of the god Ra.

Strictly speaking, the hieroglyph in figure 2.7 that is believed to be the cartouche of "Khufu" should actually be read as "Ra-fu," because the disc glyph here that should denote the phonetic Kh actually reads as phonetic Ra, since there are no horizontal lines (hatchings) evident in the circle glyph that would render the disc unambiguously as the placenta (or sieve) glyph (Kh)—just a plain disc exactly like the plain Ra disc in the cartouches of his immediate successors, Radjedef, Rachaf, Menkau-Ra (Menkaure), and so forth.

However, as with most things from ancient Egypt, matters are not quite as straightforward as they might at first appear. We know from other ancient Egyptian texts that a plain disc (a disc without the horizontal hatchings) can indeed represent the phonetic Kh sound. However, when the phonetic Kh disc is presented in its plain disc form, it is always painted a bluish-green color to clearly distinguish it from the plain Ra disc, which is usually painted either yellow-gold or reddish-orange (the colors of the sun).

To complicate matters further still, what is clearly evident in the Abydos King List is that none of the discs in the cartouches of any of the kings have been painted. This creates something of a problem—how do we know which disc glyphs should be understood as Ra and which should be read as Kh? Of course, this raises the immediate question, why render such a highly important relief in such a seemingly unclear and ambiguous manner? Surely the scribes and artisans of the Abydos table would have been aware of the potential ambiguity they were creating by failing to carve or even paint the differentiating detail into the discs

of these Fourth Dynasty kings.

What is even more intriguing (and somewhat confusing) is that it seems that both these cartouches, with plain disc (Ra-fu or Raufu) and hatched disc (Khufu), are present in the archaeological record, with examples of both having been found in and around Giza and elsewhere. Indeed, even within Col. Howard-Vyse's very own journal, where he first notes the Khufu cartouche from Campbell's Chamber (with hatched disc), we find on the very same page that he has also drawn a cartouche of Raufu (with a plain disc) that he found inscribed in the mastaba of Imery at Giza. But how can this be? Why do Egyptologists interpret these similar (yet quite different) inscriptions as the name Khufu and not as Khufu and Raufu?

Invariably, Egyptologists will insist that there is really only one inscription—that the two different cartouches (plain disc and hatched disc) we find in the archaeological record both refer to the same person, the same King Khufu. Egyptologists insist that the plain disc variety of the name Khufu (as presented in the Abydos King List and elsewhere) was simply an unfinished disc, that the artist failed to paint the plain disc bluish green or to carve or paint horizontal lines within the disc to render it unambiguously as Kh. Alternatively, they will claim that the absence of the differentiating horizontal lines or bluish green paint was the result of a simple mistake or an oversight on the part of the scribe or sculptor, or that the horizontal lines have simply faded away (while the rest of the inscription remained perfectly visible), or that the paint has faded away.

Well, that's a lot of assumptions, a lot of unfinished discs, or a lot of scribes making a lot of mistakes. What we must keep in mind here is that such a mistake in the king's name would be regarded almost as blasphemous and would be unlikely to go unpunished in those times—incentive enough, one would think, to ensure that the god-king's name was perfectly inscribed.

Is it reasonable to consider that this disc in this cartouche should have been

rendered so ambiguously? Is it not more likely that there are no mistakes and that these two distinctly different cartouches we find in the archaeological record do, in fact, refer to and identify two quite different individuals, two quite different kings, Raufu and Khufu? Is there any other evidence that might support such a radical conclusion? Well, let us see.

What must be understood here is that the carving of a hieroglyphic inscription generally presented the inscription's meaning, while the painting of an inscription was largely (though not exclusively) for its decoration. The scribes, sculptors, and artisans of the Abydos King List would have well understood the frailties of paint, and so, to ensure that the king's precise name would endure for all eternity—as assured by the protective Shen-Ring cartouche that encircles the pharaoh's name—they surely would have sought to carve the horizontal hatchings into the disc of the king's name (as opposed to merely painting the lines in) to render the disc as Kh for all eternity.

Such carving of the hatching lines (as opposed to merely painting them) would have been all the more pressing when one views the context in which the alleged Khufu cartouche is presented in the Abydos table. As stated earlier, the alleged Khufu cartouche is immediately followed by inscriptions that present identical plain discs in the names of Radjedef, Rachaf, Menkau-Ra (Menkaure), and others that are fully understood and accepted by scholars as phonetic Ra/Re and not as phonetic Kh.

And so, with the alleged Khufu name set within such an ambiguous context, it is not unreasonable to take the view that this would not have gone unnoticed by the scribes and sculptors and something would have been done about it. The artisans would have seen how imperative it was that hatchings be carved into Khufu's inscription to ensure clarity and durability, or that this cartouche, at the very least, was painted with its differentiating colors—gold or red for the plain sun disc Ra and a plain bluish-green disc for Kh. So why, we must ask, did they not ensure that the alleged Khufu cartouche was rendered unambiguously with a carved (or painted) disc?

The answer may be staggeringly simple; these differentiating lines were not carved or painted, or the plain disc painted bluish green, because this additional differentiating marking may not actually have been required. Ergo, the plain disc glyph presented in the alleged Khufu inscription in the Abydos King List is to be read precisely in the manner that we find it, as Re/Ra—as Raufu. There seems little possibility of a mistake here. The two types of inscription believed to be the single name Khufu may in fact actually refer to two quite different kings—Khufu and Raufu. It is, in our opinion, quite unreasonable to expect that this disc—if it was meant to be read as Kh—would not have received carved hatchings precisely due to the highly ambiguous context in which this cartouche is presented in the Abydos table, alongside several other identical plain discs that are to be read as Ra/Re.

The Seal Seals It

Now, we fully realize that such a statement will be regarded as highly controversial, calling into question hundreds of years of Egyptological consensus that regards these two different cartouches as referring to the same King Khufu. There is, however, further compelling evidence to support our view that these two different inscriptions do indeed represent two different kings and not one.

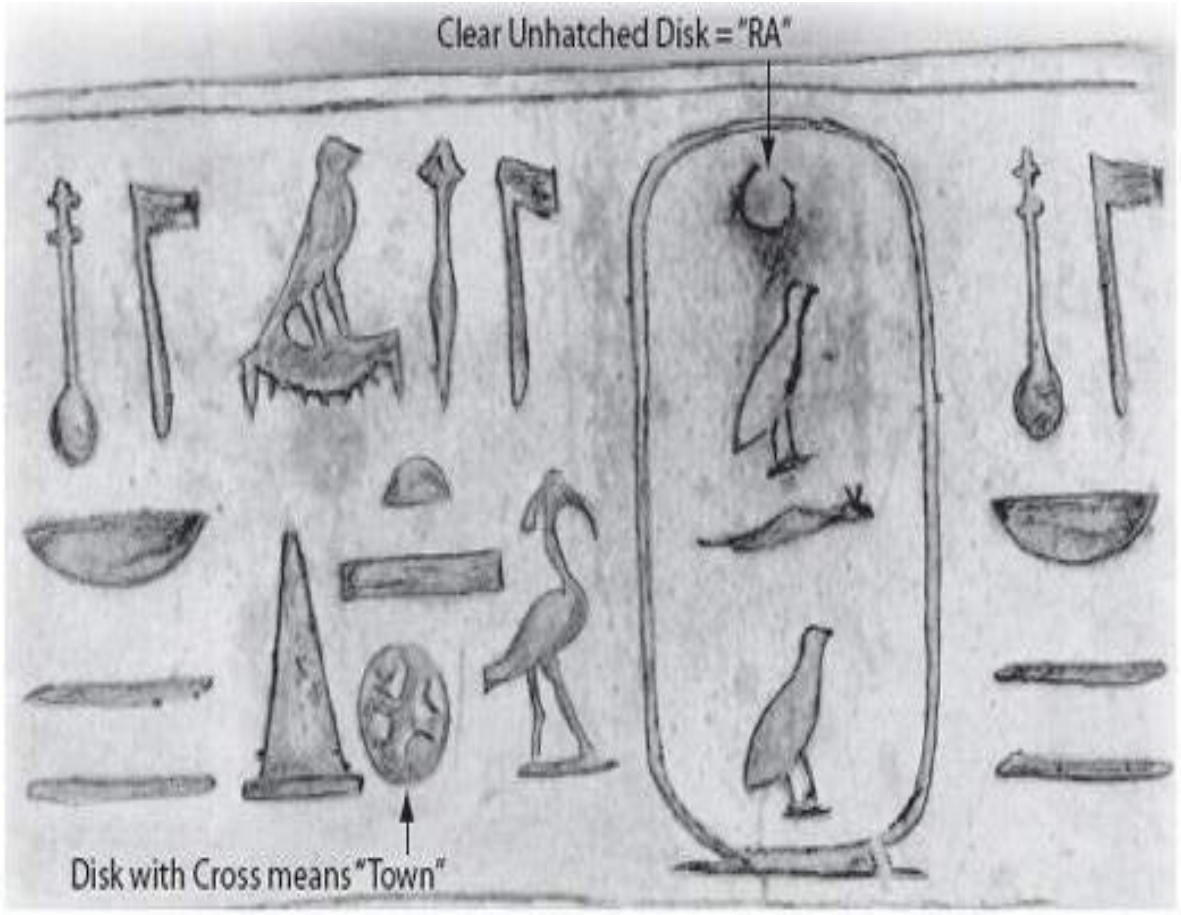
Consider the images in figures 2.8a and 2.8b, which show a Fourth Dynasty cylinder seal and its impression supposedly depicting the phrase “Pyramid Town Akhet Khufu.” Note: the supposed Khufu inscription is within the oval-shaped cartouche.

Now, the purpose of a cylinder seal was to quickly and efficiently render the name of the king onto a wet clay tablet, usually for official business. This clay tablet would then be fired in a kiln. It would not be expected that each and every clay impression from such a seal—when fired and dried—would then have to be painted to finalize the precise detail of the king’s name, since such an action would only serve to completely undermine the very purpose and efficiency of the seal. In order that such a seal could function as efficiently as possible, it should be able to render the full royal name of the king upon impression, and without the need for additional detail having to be added afterward to make the meaning of the name clear and unambiguous. Thus the use of paint with regard to a seal is quite impractical for the purposes of differentiating particular hieroglyphs and would be regarded as highly inefficient, undermining the very nature and purpose of a seal.

Simple common sense tells us that the most efficient and most practical way to render the full, unambiguous name of the king when using a seal would be to carve the full, unambiguous name of the king right into the seal from the start. If

the name is Khufu, you would carve a hatched disc right into the seal so that upon impression the meaning is perfectly clear—Kh. And, as stated, since the use of paint in this process would be highly impractical, you simply must carve the proper meaning, a hatched disc, straight into the seal, so that Kh is clearly presented each and every time the seal is used. It can hardly be expected that every impression from the seal would require bluish-green paint to be added to a plain disc in order to denote Kh. Why do this when there was a much simpler and more efficient means to achieve the same result?

Now, observe the disc within the cartouche of the king's name (figures 2.8a and 2.8b). Once again we see that the disc within the royal cartouche (labeled "1" in figure 2.8b) has been rendered without the horizontal hatchings; it is a plain (unhatched, unpainted) disc that is identical in every way to the plain disc of Ra! All ambiguity could have very easily been removed from this seal (and, of course, its impressions) with the simple use of carved, horizontal lines within the disc of the king's name (and remember, only carved lines in this disc could be used here, since paint cannot be used as the differentiating factor with a seal whose function is to efficiently impress the full and proper name of the king onto a clay tablet). But these differentiating lines were not carved into the seal, and we have to ask, why wasn't this done? Why was the disc in the king's cartouche of this seal finished without the absolutely essential hatched lines that would be needed to render the king's name properly and unambiguously?



a

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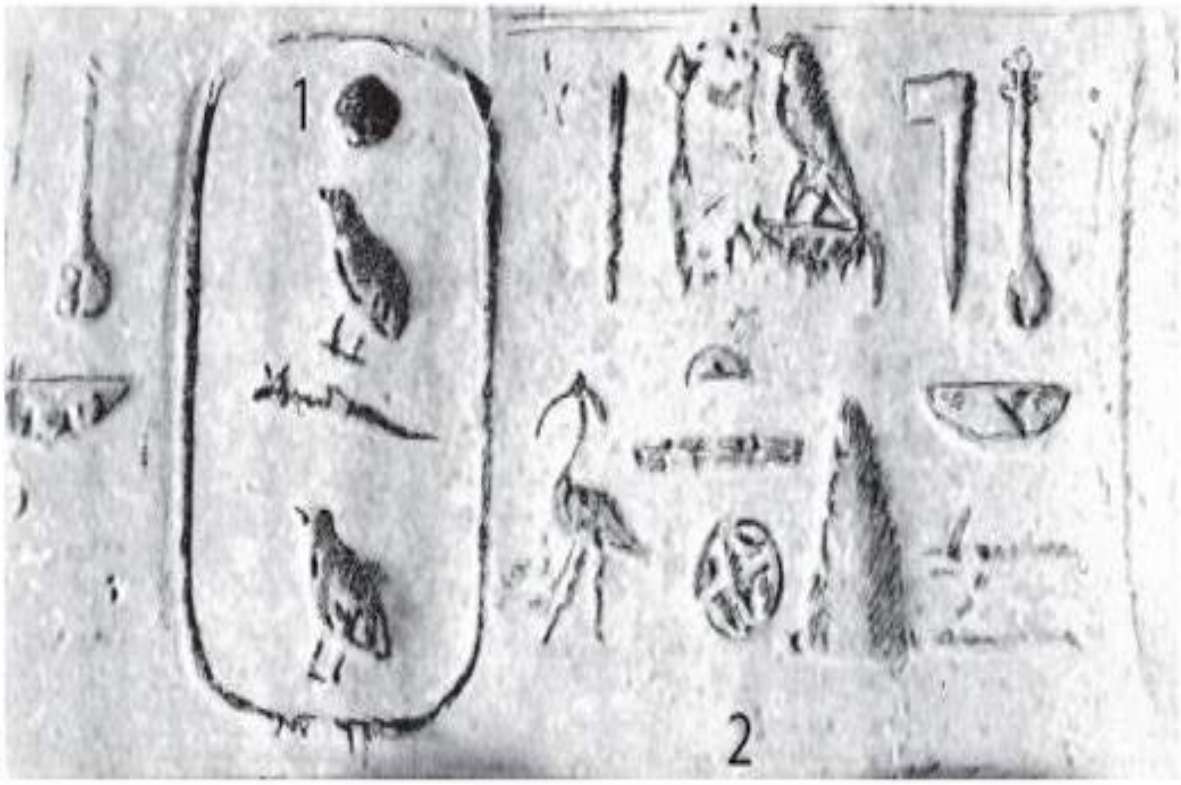

b

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Figure 2.8. Author's rendition of cylinder seal impression depicting "Raufu"

Beside the cartouche (bottom right, figure 2.8b) we can see another disc (labeled "2") that has been rendered very precisely with the intricate detail of a cross carved into the disc's interior. This is the ancient Egyptian word for "town" or "territory." The point in highlighting this is to show that it is quite inconceivable that the maker of this seal would have remembered to carve the full, intricate line detail for the word "town" and yet completely forget to carve the full detail (hatched horizontal lines) within the disc of the god-king's name.

It has been argued by some that the disc of the king's name in this particular seal is simply too small an area to have rendered such intricate detail. This argument makes little sense since if such line detail were indeed required, why not simply create a slightly larger disc of similar size to the "town" disc, into which the horizontal line detail could have been carved? Why was a larger disc not created into which such horizontal lines could easily have been accommodated?

There is but one inescapable conclusion that must be drawn from this evidence. It seems reasonably clear that the maker of this seal fully intended the disc within the cartouche of the king to be rendered as a plain disc with no horizontal hatchings, so that it would read as the phonetic Ra. There seems to be no mistake here on the part of the scribe or sculptor (as is often assumed by mainstream Egyptology). There can be little doubt about this. The name of the king on this seal seems to have been fully intended to be impressed as "Raufu" and, again, is almost identical to the name we find inscribed within the cartouche of the second king of the Fourth Dynasty as presented in the Abydos King List (figure 2.7 on page 79)—"Ra-fu."

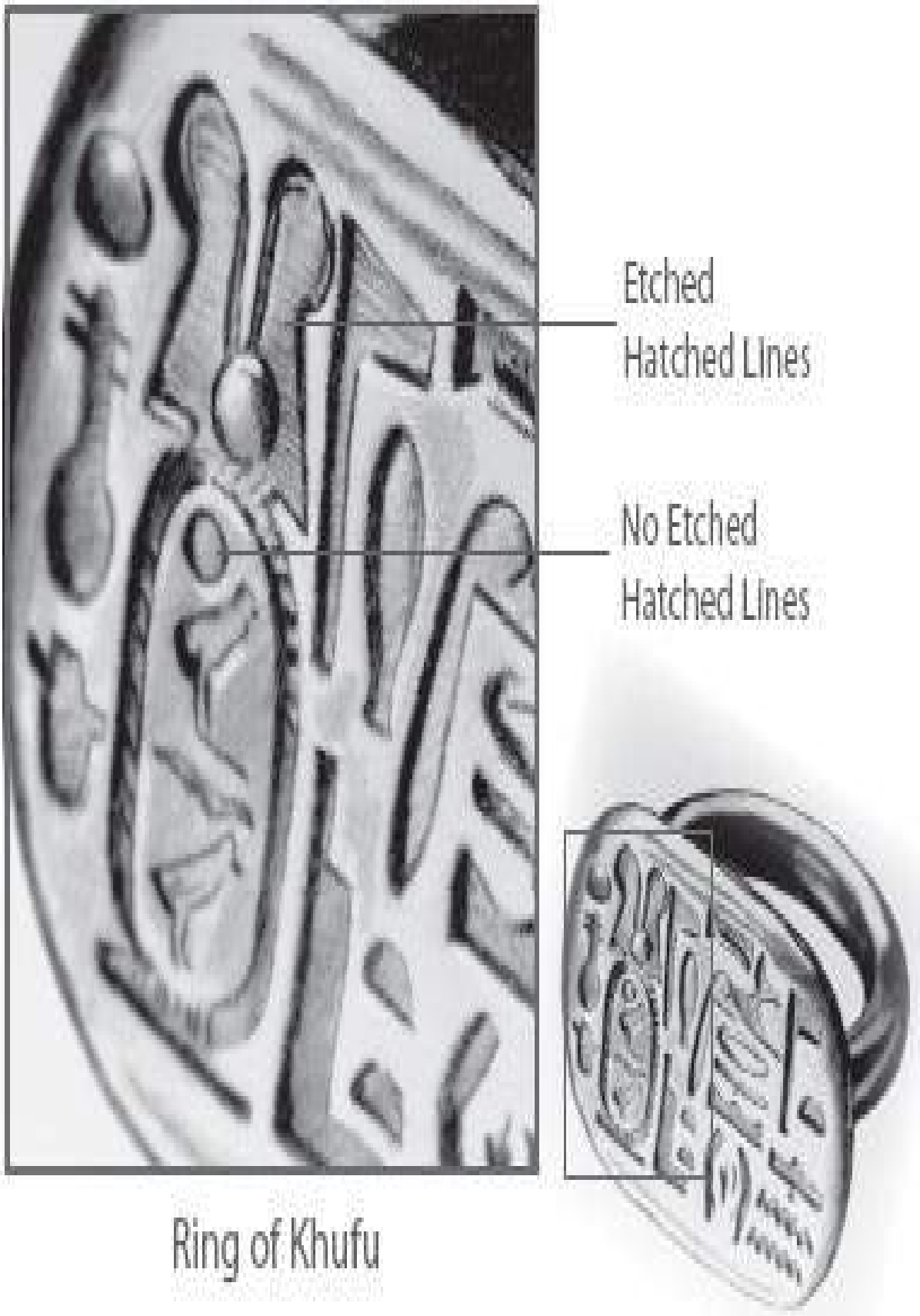
And what is notable here also is that these two plain discs—from the plain disc in the Fourth Dynasty seal and its impression to the plain disc in the Nineteenth

Dynasty Abydos King List—remained consistent, even though these inscriptions are separated by over a thousand years!

The Ring of the King

As stated above, when colored, the plain circle hieroglyph for Ra is painted either a gold or reddish color to distinguish it from the plain bluish green–painted Kh disc. Intriguingly, this is precisely what we find in the ring-seal of Khufu (figure 2.9)—a plain gold circle, Ra within the cartouche of the king. Again, this ring—made of gold—is a seal, the function of which would be to render an impression from the ring quickly and efficiently and without having to add any further detail to clarify the inscription after it is impressed.

If Khufu had been the intended name on this seal, we would undoubtedly have found hatched lines etched into the gold disc of the king's name. That these horizontal lines are not evident within the disc of the king's cartouche (while such fine horizontal lines are evident just about everywhere else on this ring, even in very tight spaces) tells us, unequivocally, that this gold-colored disc in this ring-seal is to be understood as phonetic Ra, and the king's cartouche, therefore, is to be read as "Raufu."



Ring of Khufu

Figure 2.9. Author's rendition of the Ring of Khufu shows no hatched lines (Late Period)

It seems incredible that the numerous cartouche inscriptions supposedly bearing the name of Khufu with a plain disc are deemed by orthodox Egyptology as simply unfinished glyphs or even mistakes on the part of the scribes or sculptors. However, the evidence from these seals strongly suggests that this name Raufu —as distinct from Khufu—was quite intentionally inscribed and that it is the finished article—no mistakes, no unfinished work, no ambiguity.

Once again, however, conventional thought will counter this claim by stating that the names of all kings of ancient Egypt were meaningful, that the inscription of "Khufu" (which means "to protect") would be rendered meaningless when presented as "Raufu." A closer scrutiny of the evidence, however, suggests that the name Raufu is perfectly meaningful too, for we contend that it could just as easily be interpreted as "horizon (Ufu) of the sun god (Ra)." Again, this contradicts the conventional view, whereby Egyptologists would point out that the ancient Egyptian word Akhet means "horizon" and not Ufu. However, according to Egyptologist Maria Carmela Betro, the ancient Egyptian word Akhet should not, in fact, be translated as "horizon."

"Mountain with the Rising Sun"

Ideogram in 3ht, "horizon"

The sign 3ht, born of the union of the disk and the hieroglyph for mountain, is rather inappropriately translated as "horizon," associating it with a modern notion which is foreign to Egyptian thinking.

The sign is a relatively recent creation of Egyptian writing, unknown in the Pyramid Texts, in which the sign that determines the word 3ht is the hieroglyph of a sandy island. The earliest known documentation of the sign is from the Fifth Dynasty, an epoch that saw the official affirmation of the solar cult. Thus the hieroglyph represents the point where the sun appears above the earth at daybreak and where it touches the earth again at sunset. This is the proper meaning of the ideogram, connected to the root 3h, “to shine.”[13]

So it seems that the word Akhet does not, in fact, mean “horizon,” as most Egyptologists assert, but rather the specific “place or point on the horizon” where the sun rises and sets. So what was the ancient Egyptian word for “horizon,” if it was not Akhet?

Quite intriguingly, the modern Egyptian word for “horizon” is Oufou (a variant of Ufu). Even more intriguing, according to independent Egyptian researcher Sharif Al Morsey, in classical Arabic, the letter K is often used to accentuate a word, giving Oufouk, which is, of course, a reverse variant of Khufu. Modern Egyptian-Arabic is, however, far removed from the tongue and language spoken in ancient Egypt, the Coptic Egyptian language being the closest existing language to that spoken and written by the ancient Egyptians. So, if Ufu or Oufou was indeed the ancient Egyptian word for “horizon,” how is it possible that this word could have survived for thousands of years relatively unchanged from its ancient roots?

Sharif Al Morsey writes:

The cultural history between Arabia and Ancient Egypt was extensive and most Arabic words do come from ancient Egypt, such as “oufouk,” meaning “horizon.”

In fact, the Indo-European letters started from Egyptian hieratic into Proto-Sinaitic, then into the various Semitic letters, then into Greek, to what we see existing today in our everyday writings. The Sinai was the bridge of ancient Egyptian wisdom to the world. And the Bedouin Arabs of the Sinai learned their script and phonetics from ancient Egypt.

Both Arabic and Hebrew come from the same mother tongue which is Thamoudic or Bedouin from Transjordania/Sinai. They both lived and transacted with ancient Egypt, taking a lot of their religion, traditions, and even language from the ancient Egyptians. Such as the Arabs use “oufouk” or “oufou” as the word for “horizon,” the Hebrews have taken the same word from ancient Egypt but with a slight change—the Hebrew word for “horizon” is “ofek.”[14]

It seems, then, that the ancient Bedouins who interacted to some considerable degree with the ancient Egyptians (even being at war with them on occasion) and who took on some of their language and customs may well have been the link through which this ancient word was preserved and transmitted from its ancient Egyptian roots into modern Egyptian-Arabic. There is every reason to suggest that the word Ufu does indeed mean “horizon” and that Raufu has a perfectly sensible ancient Egyptian meaning—“Horizon of Ra” or “Akhet Raufu,” “the rising/setting place of Ra on the horizon.”

Naturally this leads us to the very obvious question, If Raufu was indeed the second king of the Fourth Dynasty ca. 2550 BCE—as the available evidence seems to suggest—who then was Khufu? When did he live? And why do we find his name (as opposed to Raufu’s name) painted in an inaccessible area (until 1837) of the Great Pyramid?

The conclusion is inescapable—Khufu (as the Inventory Stele seems to suggest) may indeed have been the builder of the Great Pyramid, but Khufu may not have

been the second king of the Fourth Dynasty ca. 2550 BCE, this seemingly being Raufu. And it stands to reason that if Khufu does not belong to this period of Egyptian history (as seems to be the case), neither can the Great Pyramid (apparently built by Khufu). And, by extension, neither can the other giant pyramids that preceded the Great Pyramid belong to the Old Kingdom period of Egyptian history.

Controversial as this conclusion might be, it seems to be supported by the radiocarbon-dating evidence—such as it is—from the pyramids themselves, which suggests that these structures were built some 400 to 1,200 years before ca. 2550 BCE, when, it is asserted by mainstream opinion, the Great Pyramid was built. We will consider this radiocarbon-dating evidence of the pyramids in chapter 4.

Somewhat of an aside here is the view expressed by Dr. Hossam Aboulfotouh, who claims that the "Khufu" inscription found within the Great Pyramid has been completely mistranslated by orthodox Egyptologists and that the name Khufu should in fact be translated as "Gado" (the Greek Gadeirus), who was supposedly the twin brother of Atlas and one of the ten kings of Atlantis.[15]

To summarize: it appears that Egyptologists may have confused Khufu (the probable builder of the Great Pyramid, as indicated by the Inventory Stele and implied also by discovery of this name in Campbell's Chamber of the Great Pyramid) with a lesser Fourth Dynasty king known as Raufu, a king who may only have appropriated the Great Pyramid as his tomb ca. 2550 BCE, who perhaps ordered some repair works to the Great Pyramid at that time, who perhaps also constructed the Great Pyramid's causeway, and who perhaps also ordered the construction of the eastern and western cemeteries at Giza—the same king Raufu who may also have fathered the succeeding Fourth Dynasty kings Radjedef and Rachaf.

In other words, Egyptologists have convinced themselves that this King Raufu of

the Fourth Dynasty ca. 2550 BCE was the same person who built the Great Pyramid (that is, Khufu), who—in all probability—belonged to another, much earlier age, a Golden Age when the structures at Giza may in fact have been built as part of a preconceived, unified, homogeneous plan, a concept we will consider in detail in the next chapter.

And this now is an opportune moment to remind ourselves that there are many names of ancient Egyptian kings that have been lost to history, some deliberately erased, many as the result of periods of unrest that may never in fact have been recorded. We simply do not know with any certainty just how many names and how much history may actually have been lost.

It now seems somewhat ironic that, notwithstanding allegations of forgery claimed by some alternative authors of ancient Egyptian history, the very evidence Egyptologists hold up as unequivocal proof that Khufu built the Great Pyramid—the inscription of Khufu found in Campbell's Chamber by Howard-Vyse—seems to suggest that the Great Pyramid and the other Giza pyramids may not actually be original constructions of the Fourth Dynasty kings who—as stated—perhaps merely appropriated the Giza pyramids as tombs with intrusive burials, while later dynasties may in fact have constructed much smaller pyramids in homage to the greatness of the pyramids of the gods who built all the giant pyramids (including Giza) and who, in so doing, ensured the preservation, revivification, and continuation of the kingdom, who ensured the afterlife.

In short, the pyramids at Giza may only have been appropriated as tombs by the Fourth Dynasty pharaohs Raufu, Rachaf, and Menkaure. As suggested earlier, Radjedef (Raufu's immediate successor), perhaps fearing the wrath of the gods, opted to attempt to build a pyramid of his very own away from Giza at Abu Roash. But as tombs—intrusive or otherwise—we have to conclude that this most likely was not the original or intended function the architects and builders of these first, giant pyramids had intended for these structures.

The Sphinx Riddle

And still the questions and anomalies continue.

As we briefly discussed earlier, it is said that the construction of the second-largest pyramid of the three Giza pyramids was commissioned by Rachaf (or Khafre), who, it is believed, had also built the Sphinx—the face of the Sphinx believed by conventional opinion to be that of Rachaf. However, this connection with Rachaf finds only circumstantial support in the causeway that connects the Sphinx to the second pyramid.

The evidence from the Inventory Stele that the Sphinx was apparently repaired by Khufu notwithstanding, the conventional belief that the Sphinx belongs to Rachaf arises largely from what was found in the text on the Dream Stele, which stands between the paws of the Sphinx—a stele that, like the Inventory Stele, was crafted long after the events it relates.

The dedication to Atum-Hor-em-Akhet (the Sphinx) on line thirteen of the Dream Stele contained the word Khaf. This name was later assumed to belong to the pharaoh Rachaf. The text surrounding the syllable was worn and crumbling, but luckily the Egyptologist, artist, diplomat, and consul general in Egypt Henry Salt (1780–1827) was able to make a facsimile of the stele before the text had completely flaked away some years later.

Now, from the time of Sneferu (Third Dynasty) until the late Twelfth Dynasty, the names of the pharaohs were always enclosed within an oval ring signifying that the enclosed hieroglyphic text was a royal name. This ring was a shenu, known to us today as a cartouche,*4 and the cartouche is really just an elongated

version of the Shen-Ring—a symbol associated with eternity and immortality.

This cartouche (or half-cartouche) stands out clearly on the original facsimile made by Salt, which seems to prove that the Khaf mentioned on the stele was indeed a pharaoh and possibly Rachaf of the Old Kingdom period, who is said to have lived 1,000 years before Thutmose IV, who had the stele made. But this does not prove that the Sphinx was crafted by Rachaf, for it is equally feasible that the Sphinx may only have been adopted by Rachaf (in the same way perhaps that Rachaf adopted the second Giza pyramid as his tomb)—its original lion head (as some researchers have speculated) then being refashioned to take the form of a pharaoh complete with the royal Nemes headdress, or perhaps even the likeness of Rachaf (or Raufu).

This would explain why the text Khaf found on the Dream Stele might indeed have been penned by Rachaf, as it was he who may have had the head of the Sphinx resculpted. After all, it has long been acknowledged that the Sphinx's head is disproportionate to the body ("looking like a mere pimple," as described by author Robert Temple) and appears to have less erosion than the body, which supports the view that the head may have been reduced and refashioned sometime after ca. 5000 BCE, the former erosions and age lines of the stone head that are still evident on the body having been largely eliminated by this remodeling—a complete facelift and makeover.

Curious also is the inscription on the Dream Stele that states that the Sphinx was made for Atum-Hor-em-Akhet. It has been concluded that this name refers to the Egyptian sun gods Horus and Ra (later Atum-Ra) in their syncretized form as the Sphinx—even though there is still some confusion as to who or what the Sphinx really represents.

Sphinx is a Greek word and may have derived from the Egyptian Shesep-ankh, which translates as "living image," meaning the "living image of Atum"—Shesep-ankh Atum. So here, the Sphinx is an image of Atum, the ultimate sun god

—the father of all gods, the godhead, and the source of creation itself. However, the name Atum-Hor-em-Akhet implies that the Sphinx is also identified with Horus the sun god—the "son of the Sun."

This issue of which god the Sphinx represents, even if it represents both, requires more clarity. Ivory labels have been found from tombs at Abydos (First Dynasty, before the time of Raufu and Rachaf) depicting a large, half-buried Sphinx with only the head and paws visible. However, it's possible that this depiction of the front half of the Sphinx could in fact be an ancient symbol associated with that mysterious priesthood known as the Followers of Horus — the Shemsu-Hor—otherwise known as the Akhu or Shining Ones. Akhu is related to the word Akh, the ancient Egyptian name meaning "light," used to refer to the spiritual source-center of creation, so Akhu translates as "Shining Ones."[16]

Thutmoses's predecessor, Amenhotep II, even mentioned the Sphinx as being older than the pyramids, which, again, would make it older than Khufu, and, again, confirms what we are told in the Inventory Stele, that Khufu repaired the Sphinx.

Quoting Professor Selim Hassan, "Excepting for the mutilated line on the granite Stele of Thothmothis IV, which proves nothing, there is not a single ancient inscription which connects the Sphinx with Khafre [Rachaf]."[17]

Other hard evidence that lends support to the notion that the Great Sphinx existed prior to Khufu's time (ergo, prior also to Rachaf 's time) comes from an unlikely source—geology. Geologist Colin D. Reader tells us:

Under the conventional sequence of development, Khafre's [Rachaf 's] causeway (and the Sphinx), were undeveloped at the time of Khufu's quarrying.

If this sequence is correct, why should the extent of the quarrying have been limited by a feature (the causeway) that was not developed until sometime after Khufu's reign? The conventional sequence of development requires us to accept that Khufu's workmen went to the trouble of opening up a second quarry to the south of the causeway, rather than remove a linear body of rock which, at the time, served no apparent purpose.[18]

It seems that the geological evidence presented here by geologist Colin D. Reader suggests that the causeway from the Sphinx to the second pyramid (G2) may have already existed when the quarrying of limestone blocks for the Great Pyramid was underway, since the builder of the Great Pyramid was quarrying blocks from either side of G2's causeway (which is connected to the Sphinx enclosure). The alternative possibility is that there existed a grand predefined plan for the entire site, and by quarrying limestone blocks as he did, Khufu was effectively creating the causeway for the (future) second pyramid while he quarried blocks for the first pyramid. We will consider the possibility of a predefined master plan for the Giza site in detail in the next chapter.

It seems quite clear to us that there is a hidden side to these historical events that surround the Giza plateau that has remained unspoken for reasons largely unknown to us. As we continue our journey through the pages of this book, we will discover that the early, giant pyramids (and the Giza pyramids in particular) present much more than the final resting place of a particular pharaoh.

Some of the clues that can lead us to this unofficial version and the conclusions that we have come to also exist within the official version given above—untold associations and intriguing connections that are not so well known and that lead us into other dimensions of the story of this special place on Earth where answers regarding the purpose of the Giza monuments rest, waiting to be rediscovered.

Chapter 2 Summary

No remains have ever been found in any of the first giant pyramids that have been proven to be those of an ancient Egyptian king. A few intrusive burials have been found at the Saqqara and Giza pyramids, while animal bones and some human bones of unconfirmed origin were found in a few other pyramids.

Some undisturbed tombs discovered and opened in the early twentieth century have been found to contain a completely sealed sarcophagus, which, when opened, was completely empty. More recently, a sealed sarcophagus was opened only to find it filled with ancient cushions.

The pharaoh Sneferu is known to have constructed a total of four pyramids with numerous “burial chambers.”

The Great Pyramid of Khufu has three “burial chambers.”

Two different kings’ names have been found in the relieving chambers of the Great Pyramid—Khufu (Campbell’s Chamber) and Khnum-Khuf (Lady Arbuthnot’s Chamber).

The Inventory Stele informs us that Khufu built “his pyramid” and a pyramid for his daughter. It tells us further that he restored the Temple of Isis and the Sphinx.

The naming of the goddess Isis in the Inventory Stele indicates that the cult of Osiris/Isis, contrary to conventional thought, existed in the Fourth Dynasty (possibly long before).

The Khufu inscription found within Campbell's Chamber of the Great Pyramid is not the same inscription attributed to Khufu that we find in the Abydos King List.

A strict interpretation of the Abydos King List presents the second king of the Fourth Dynasty as Ra-fu and not Khufu as is commonly believed.

Seal 11099 in University College, London, and the Ring of Khufu present the fully intended impression of the name Raufu, thereby offering considerable proof that the name Raufu is distinctly separate from the name Khufu, and that they are not—as Egyptologists have long asserted—the same person.

The pharaoh Rachaf (Khafre) cannot positively be identified as the builder of the Great Sphinx or the second Giza pyramid.

The geomorphology of the Giza plateau seems to suggest that the Great Sphinx and the causeway linking it to the second pyramid already existed in Khufu's time.

3

THE ORION KEY

Upsetting the Applecart

In the previous chapter we raised a number of significant questions that cast considerable doubt on the conventional view that the first pyramids of ancient Egypt were conceived and constructed as tombs of the pharaohs, as is commonly believed. In this chapter we will discover another body of evidence from an entirely different but nonetheless relevant source (archaeoastronomy) that raises even more questions and casts further doubt on the conventional tomb theory, and which hints that the early pyramids of ancient Egypt may in fact have been conceived and constructed to serve another, more important function.

It has long been the view of mainstream Egyptologists that the location of each of the main pyramid structures at Giza was determined purely on the wishes of the ruling pharaoh, allied to the practicalities and logistics of a particular site. It is further held that the king's decision as to where he sited his pyramid gave little or no consideration to structures that had gone before or would come after at any particular site. Each pyramid at Giza—so the conventional view asserts—was effectively constructed as a discreet royal funerary complex by each successive king of the Fourth Dynasty (with the exception of Radjedef), and this was done without reference to any predefined, unified, homogeneous site plan. In short, we are told that each pyramid at Giza was constructed as a singularity and that there existed no grand architectural scheme, no grand plan that unified the Giza structures in any significant or meaningful way.

This singularity view of the pyramids at Giza runs contrary to the work of Robert Bauval, who, in 1994—in partnership with coauthor Adrian Gilbert—published his first book, The Orion Mystery, which presented the radical hypothesis that the pyramids at Giza were constructed as symbolic representations of the three Belt stars of the constellation of Orion. By advocating such a hypothesis, Bauval was invoking the almost heretical notion that each of the three main pyramids at Giza was constructed as a component

part of a predefined, long-term project: a multigenerational master plan that involved a correlation with the three Belt stars of the constellation of Orion.

Since this entire concept—a unified stellar design—runs contrary to the long-held tomb theory of mainstream Egyptology, it is unsurprising that in presenting such a bold hypothesis, Bauval quickly incurred the wrath of the academic establishment. With a few notable exceptions, most Egyptologists remained largely unconvinced of the proposal, dismissing much of the cultural evidence Bauval presented in support of his work from ancient Egyptian writings known as the Pyramid Texts.

The Egyptologists demanded that Bauval present conclusive evidence in support of his Orion hypothesis before they would even remotely consider overturning almost two centuries of Egyptological consensus that staunchly regarded the Giza pyramids as three discreet royal funerary complexes constructed entirely independently of each other and on the whim of the particular pharaoh in whose name the pyramid was supposedly built.

Bauval, however, remains steadfast in his view. Almost two decades after publishing The Orion Mystery, in the shadow of the Great Pyramid (figure 3.1), we asked Bauval his opinion concerning a very obvious anomaly at Giza. “If Khufu was the first to build at Giza,” we asked him, “why then didn’t Khufu construct his Great Pyramid on the prestigious, high ground in the center of the plateau?”

With his characteristic enigmatic smile, Bauval replied, “Because there was a plan, Scott.”

Figure 3.1. Creighton (left) and Bauval at the Great Pyramid

In Keeper of Genesis/Message of the Sphinx (Bauval/Hancock, 1997), the authors show how this grand plan may also have included the Great Sphinx at Giza, which they hypothesize was designed to serve as a reflection of the constellation Leo in the eastern sky ca. 10,500 BCE.

It seems then—according to Bauval and Hancock—that the designers of the Great Sphinx may have used the constellation Leo as the underlying template for the design of this most recondite of all Giza structures. On this basis, might it not then be possible that the designers also used the Belt stars of Orion in a similar fashion, not simply to lay out the pyramids on the ground in a near-identical pattern to the Belt asterism, but to use the Belt asterism also as the underlying design template from which to generate the actual dimensions—the bases—of all three main Giza pyramids?

In some areas of pyramid research, the search for a simple, systematic process that allows for the easy determination of all three pyramid bases at Giza is almost akin to the search for the Holy Grail, with all manner of complex mathematical solutions being presented, none of which—due to their inherent complexity and requisite caveats—can be considered even close to satisfactory. It hardly needs to be stated, therefore, that if it can be demonstrated that the Orion Belt asterism can be used in a very simple, systematic, and logical manner to generate three bases whose dimensions can be shown to proportionally match the bases of the three main Giza pyramids, this would provide strong (albeit circumstantial) evidence in support of Bauval's Orion hypothesis while simultaneously presenting a considerable blow to the orthodox tomb theory.

But can this be done? Is it possible that the asterism of Orion's Belt can—when applying a very simple and systematic geometrical technique—be used to

produce three bases that will proportionally match the bases of the three large pyramids at Giza? Shortly we will investigate this idea, but for the moment let us consider some further anomalies that exist at Giza for which there exists no convincing conventional answer.

(Note: For the purposes of clarity, we will assume here the conventional attributions of the three large pyramids at Giza with Khufu, Rachaf, and Menkaure. The reader should keep in mind, however, that it remains our view that Khufu, while being the likely builder of the Great Pyramid at Giza, was probably not a king of the Fourth Dynasty ca. 2550 BCE, as demonstrated in the previous chapter; that the Giza pyramids, in our view, were probably built at a much earlier time by Khufu and for an entirely different purpose; and that the kings Raufu, Rachaf, and Menkaure merely appropriated these structures later in the period we know as the Fourth Dynasty for their own purposes, which may have included intrusive burial.)

Anomalies Abound

As already touched on in the previous chapter, if the final resting place of the pharaoh was simply a matter of his personal choice, then we have to ask ourselves, why would Khufu have chosen to locate his Great Pyramid (G1) at the very edge of the northeast escarpment of the Giza plateau?

On the surface there would not seem to be anything particularly odd about this choice of location. Looking a little closer, however, we find that the high, dominant ground lies in the center of the plateau where pyramid G2, the second to be built at Giza (attributed by Egyptologists to Rachaf), now stands. Not only does this central area of the plateau have the considerable benefit of holding the high, commanding ground, but it also benefits from having a natural causeway that runs from the area of the Sphinx up to the east face of pyramid G2—a causeway, as we noted in the previous chapter, that Khufu apparently created by quarrying blocks for the Great Pyramid from either side of it. Even today, Egyptologists refer to this natural causeway as the "gateway to Giza."

Why, then, we ask, would Khufu have chosen to construct a quite monumental artificial causeway deep into the northeast of the valley toward the Nile, with all the costs and logistical problems such a massive undertaking would surely have incurred, when a natural causeway already existed (from the edge of the Nile) up to the high, commanding ground of the plateau, which—had Khufu used it for himself—would have eased considerably the construction burden of his pyramid?

Furthermore, by failing to claim for himself the highest ground on the plateau, Khufu would have been fully aware that he was leaving the Giza door wide open for some future king to come along and trump his own magnificent achievement by potentially building a pyramid on the highest ground of the plateau, which—

as matters transpired—is supposedly what happened: G2 (although slightly smaller and shorter in height by around ten feet) appears larger and higher than G1 because it was constructed on the central high ground of the plateau.

The ancient Egyptians were—first and foremost—very practical builders. And their kings (if we are to accept conventional wisdom) apparently had egos to rival their monumental constructions. If the Great Pyramid was the first pyramid to be built on the Giza plateau, why wasn't it built on the central high ground of the plateau, which was tailor-made for such a monumental construction? For Khufu to have decided against building his pyramid on the most practical and prestigious location on the plateau completely defies all rational thinking. Why choose a low-lying (comparatively) corner of the plateau as the site for his pyramid?

Furthermore, why would Khufu have risked having the magnificence of his own grand structure eclipsed by leaving the Giza door wide open for a future king to come along and surpass his own achievement? It makes no sense, unless, of course, one considers the possibility that there was a bigger picture involved, again, a preconceived plan—a view we share with Robert Bauval.

Let us now turn our attention to the other pyramids that were constructed after Khufu's Great Pyramid. After the unexpected death of Kawab, believed to have been Khufu's first son and heir apparent, his next son and successor, Radjedef (who we suspect may actually have been the son of the Fourth Dynasty King Raufu), is regarded as the first king of the emerging solar cult to have the name of the sun god Re incorporated into the royal cartouche.*5 Instead of building on the Giza plateau like his presumed father, Khufu—and by so doing taking full advantage of the central high ground of the plateau—Radjedef decided instead to build his pyramid at Abu Roash. However, as we noted in the previous chapter, unlike the Great Pyramid, Radjedef's pyramid was of quite inferior craftsmanship and later collapsed and fell into ruin.

The second pyramid to be built at Giza is known as G2 and—as mentioned earlier—is held by orthodox opinion to have been built by Rachaf, believed to be the brother of Radjedef (although it is our opinion that Rachaf may also have been a son of Raufu). Indeed, according to Egyptologists, Rachaf was the first king of the Fourth Dynasty to apparently co-locate at Giza, building his pyramid alongside Khufu's. This is only logical, insist the Egyptologists, as Khufu was Rachaf's father. But if Giza was suitable for Rachaf, why—we must ask—was it not deemed suitable for Radjedef, who preceded Rachaf?

And why did Rachaf (and indeed, Menkaure) decide to build at Giza when—from a religious perspective ("sons of Re")—it would have seemed more appropriate for these two kings to have co-located with Radjedef (the king who supposedly first adopted the solar disc into the royal cartouche) at Abu Roash? Was their some pressing concern that forced Rachaf and Menkaure to abandon their solar-based belief and return to Giza (rather than the more logical Abu Roash) to build their pyramids?

And finally, we have pyramid G3, the smallest of the three giant pyramids at Giza and attributed by conventional thought to the Pharaoh Menkaure as its builder. Once again it defies basic human instinct that Menkaure would have wished to locate his own infinitely smaller structure in the towering shadows of G1 and G2, where its relatively diminutive stature would have been much more obvious given its close proximity to its two illustrious neighbors. If Menkaure was indeed the builder of this pyramid, then he could (like his predecessor, Radjedef) have opted to site his own pyramid at a virgin site or even co-locate at Abu Roash. In so doing, he could have avoided the ignoble fate that surely awaited his pyramid by deciding to build among the giants at Giza.

Why would Menkaure—or any pharaoh—commit to Giza in the full knowledge that the relatively small pyramid he planned to build there would forever suffer the ignominy of having failed to match the very high standards set by his two predecessors? Again, it makes little sense.

Of course, all these anomalies, contradictions, and motives are simply and easily explained by invoking an underlying, predefined grand plan. From a purely logistical point of view, it would have made sense to have built the Great Pyramid (G1) first in the northeast of the plateau, since to have begun the implementation of a grand unified plan by first building on the central high ground would have presented a considerable obstacle to later construction. Put simply, construction of the Giza unified plan had to begin in the northeast of the plateau to accommodate the logistics of building the structures that would come later in the plan. Given this logistical constraint then, Khufu—who we propose was unrelated to the aforementioned kings of the Fourth Dynasty and was the first to build at Giza—had little choice but to build the Great Pyramid on the lower ground at the northeast escarpment of the plateau. The logistics of implementing a unified master plan for the entire plateau would have dictated this.

Think of it this way: had there been no predefined master plan for later structures to be built on the plateau, there seems little doubt that Khufu would most likely have taken full advantage of the prestigious high ground in the center of the plateau with its ready-made causeway. Khufu's peculiar actions in this regard are very telling and suggest that his hands were tied; the placement of his pyramid was bound by the demands and logistics of a greater, predefined master plan.

Of course, the three kings of the Fourth Dynasty (alleged by conventional Egyptology to have built the great pyramids) would only have been bound by such constraints had they in fact been the true builders of the Giza master plan and had they not merely renovated and appropriated these already existing structures in their own names and perhaps even as their tombs, hence the association their names have with the Giza pyramids—all of which to us appears to be the most likely scenario in light of the evidence we have uncovered.

In Search of the Master Key

Whether the pyramids at Giza were constructed as singularities or as part of some greater, unified scheme, it is not unreasonable to surmise that the builders would have followed plans of some kind. Alas, however, no blueprint of any pyramid has ever been recovered.

However, even in the absence of any actual plans, it may still be possible to uncover or rediscover the blueprint, the site plan that the ancient builders may have used to lay out and define the proportions of the Giza monuments, and we can perhaps achieve this by reverse-engineering the geometry of the in situ structures. The logic here is simple: if the Giza pyramids were indeed constructed as part of some predefined, homogeneous master plan, then it naturally follows that there might also exist some guiding principle, some systematic process that is common to all three pyramids, an underlying design template—in short, a master key that we can use to reverse-engineer, unlock, and perhaps rediscover the original Giza blueprint developed by the architects of the site.

Rediscovering such a blueprint would provide substantial evidence that the pyramids of Giza were not simply placed in an ad hoc fashion on the whim of three successive pharaohs, as conventional wisdom insists, but that Giza was most likely the result of—as Bauval and others have long argued—a unified, cohesive plan set out long before a single limestone or granite block was ever set in place. And it goes without saying, if such a simple blueprint can be rediscovered (by reverse-engineering the extant structures), then one would think that mainstream Egyptology would have a much bigger problem and some considerable explaining to do.

For it is one thing to assert that each individual pharaoh constructed his tomb in

isolation as a singularity, but it becomes a whole different scenario fraught with many difficult questions if it can be shown that the entire site was planned in advance, before a single block was set in place. As a unified scheme, this would suggest a deeper purpose for these structures, something far more than mere tombs. It is simply inconceivable, for example, that the architect of such a unified design (if one can be demonstrated) could have known how many kings to build for, nor could he have known that 100 or so years into the future, the king of the third pyramid would require three smaller pyramids for his queens or that the king of the second pyramid would not require any queens' pyramids (in spite of the fact that this king actually had five known wives).

And so it stands to reason that if the architect of any such unified master plan of Giza could not have known in advance how many tombs (if tombs they were) to build into his blueprint, it simply cannot be assumed that the structures at Giza were in fact designed as tombs at the design stage. This would have been quite impossible, since the designer of any such grand plan simply could not have known at the design stage how many tombs would be required for each king (and the numerous queens) several generations into the future.

But can the pyramids at Giza—their base dimensions—be shown to conform to such a simple, unified plan, a homogeneous design that would be a devastating blow to the pyramids as tombs theory?

Indeed they can, as we shall shortly see.

The Key

As briefly stated earlier, over the years the Internet has spawned a veritable plethora of geometrical-mathematical offerings that attempt to seek the answer to the question of how the base dimensions of the three main Giza pyramids were determined and the rationale for the placement of the two sets of Queens' Pyramids in relation to the main structures. So far, however, none of these offerings provides anywhere near a complete, cohesive solution to this vexing question; the master key to unlocking the Giza Blueprint remains frustratingly elusive.

It has already been stated in the opening to this chapter that Robert Bauval has long argued that the three main Giza pyramids were built and laid out on the ground at Giza as symbolic representations of the three Belt stars of the Orion constellation. Together with Adrian Gilbert, and latterly with Graham Hancock, Bauval has provided considerable contextual evidence from the ancient Egyptian Pyramid Texts in support of his Orion Correlation Theory (OCT).

Assuming that Bauval's theory is correct, could it be possible that the Belt stars of Orion might reveal to us other aspects of the Giza pyramid design, not merely the layout of the pyramids closely mirroring the pattern (asterism) of the Belt stars? Might it be possible that the Belt asterism could have been used as the template from which to define the actual geometrical base proportions of the three main Giza pyramids, which would allow us also to explain the somewhat puzzling and contradictory alignment and placement of the two sets of Queens' Pyramids as well as the missing queens' pyramids of G2, the pyramid attributed to Rachaf?

In short, might the Orion Belt asterism be the elusive design key, the underlying design imperative sought by so many for so long to explain the relative base

dimensions of the three main Giza pyramids, their placement on the ground, and the placement also of the two sets of queens' pyramids? Can it be shown that the dimensions (as well as the layout) of the pyramids at Giza conform to a predefined unified, homogeneous plan based on Orion's Belt, a plan that—if found—would strike a considerable blow to the tomb theory? Well, let us now see.

The Orion Geostellar Fingerprint

Any three nonlinear points (in this case the three stars of Orion's Belt) can be used to generate three bases, simply and easily, using a technique that we have dubbed "geostellar fingerprinting." The following diagrams (figure 3.2a–j on pages 108–9) show how the Orion Belt stars can be used to produce their very own set of three squares that are unique to this particular asterism, their very own geostellar fingerprint.

Quite remarkably, what we find when using this simple, systematic technique is that, when a comparison is made, the base dimensions of the three main pyramids at Giza are shown to proportionally agree with the three bases produced from the Orion Belt asterism (figure 3.2j) using the geostellar fingerprinting (GSF) technique—a quite compelling connection between the Orion Belt stars and the pyramids at Giza, a connection that cannot easily be rebuffed by those who argue against the validity of the OCT.

And if this was not enough, what we also find is that by placing three diagonal lines through the midpoints of each of the three bases produced by the GSF technique, we can place the two sets of so-called Queens' Pyramids (figures 3.3a and 3.3b on page 110) along the axis of these lines (figure 3.3a).

It seems somewhat ironic to us that the mathematical solution to the Giza layout sought by so many over so many years was sought by some individuals in the hope of disproving Bauval's Orion hypothesis, yet what we now find is that the Orion Belt stars appear actually to have held the key to the base design solution of the Giza pyramids—the Giza blueprint—that these individuals had been so keen to discover.

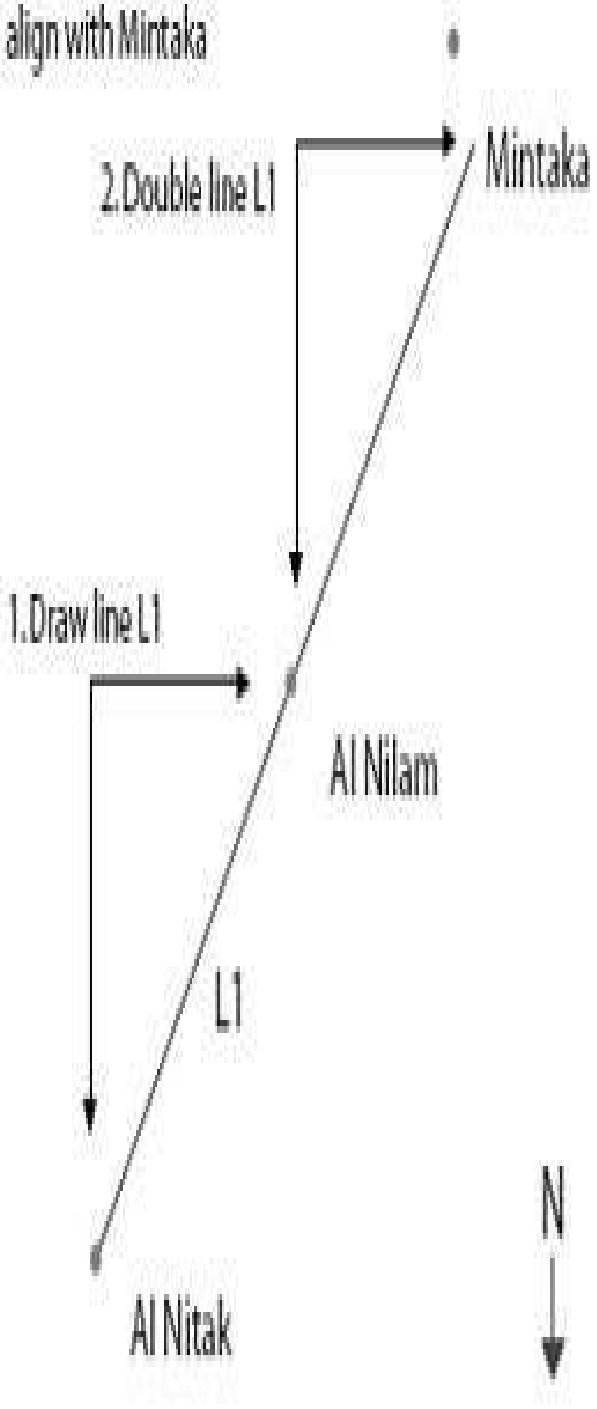
And it is worth repeating here that using this very simple and systematic technique, the pyramids at Giza are shown to clearly conform to a master plan not only in their layout on the ground, but also in their very dimensions. The layout and relative dimensions of the Giza pyramids can simply and easily be extrapolated from the Belt stars of the Orion constellation—this is to say that the Belt asterism served as the underlying design imperative for the general layout as well as the base dimensions of the Giza pyramids, the master key.

a) Orion Geostellar Fingerprint—Step 1

Orion belt star asterism is placed on the ground at Giza.

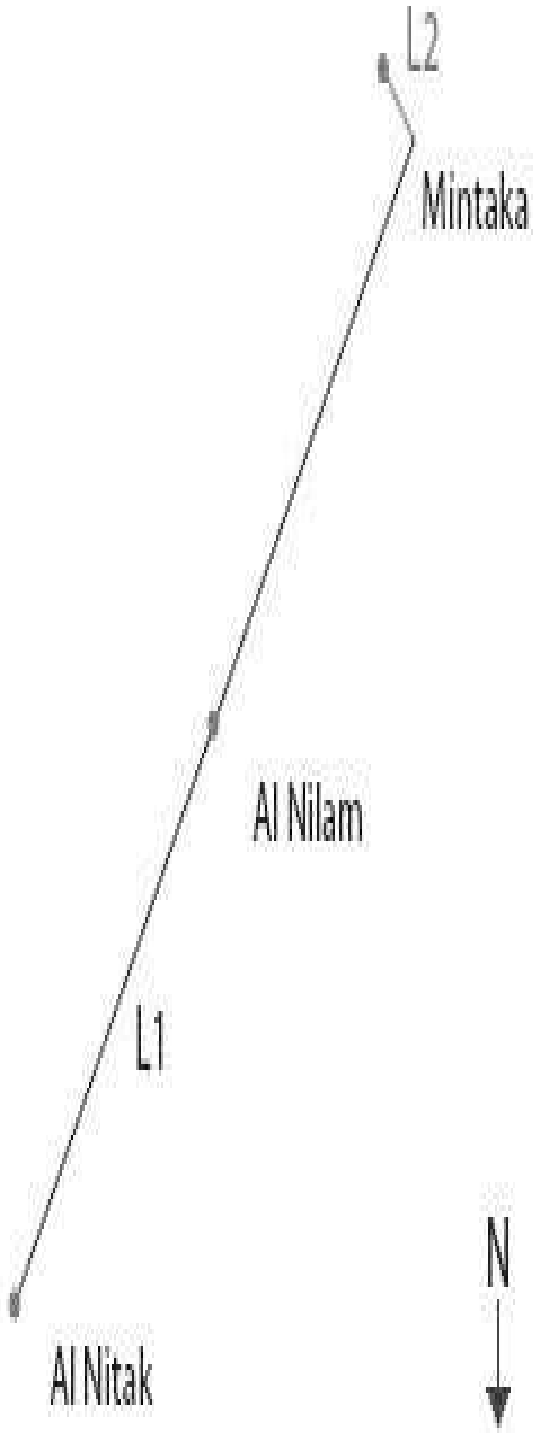
b) Orion Geostellar Fingerprint—Step 2

1. Draw a line (L1) from Al Nitak center to Al Nilam center.
2. Double the length of the line (L1) from Al Nilam center to align with Mintaka



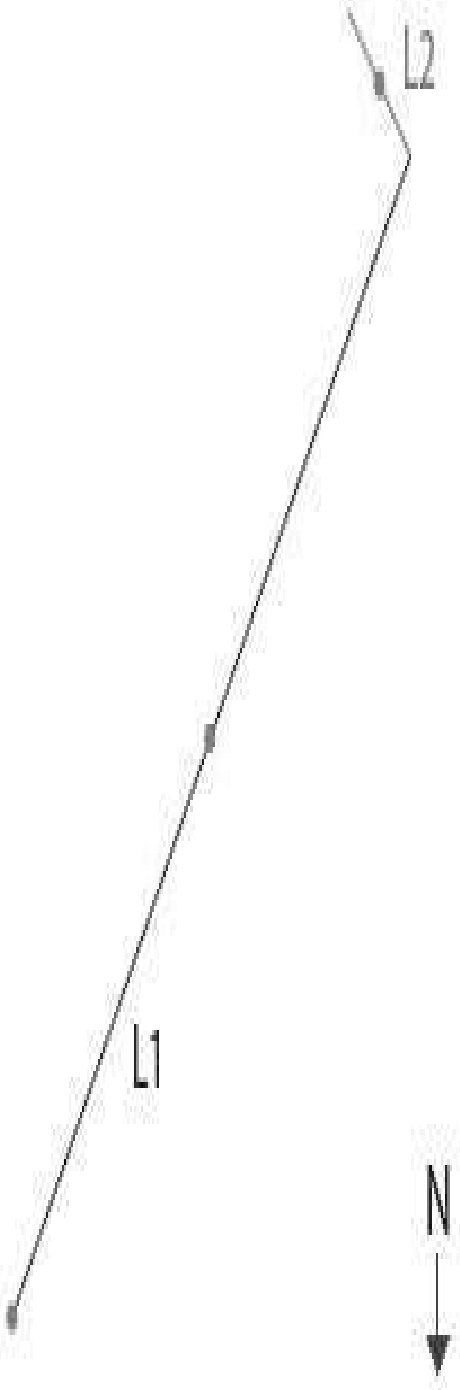
c) Orion Geostellar Fingerprint—Step 3

Place a Line (L2) through Mintaka Center to L1.



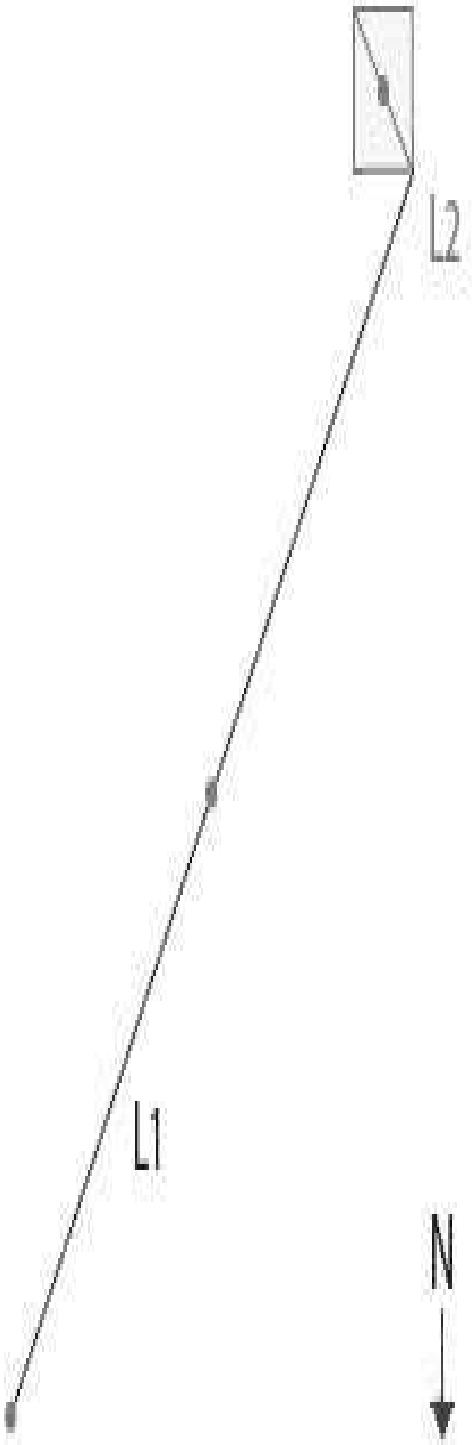
d) Orion Geostellar Fingerprint —Step 4

Double the Length of L2.



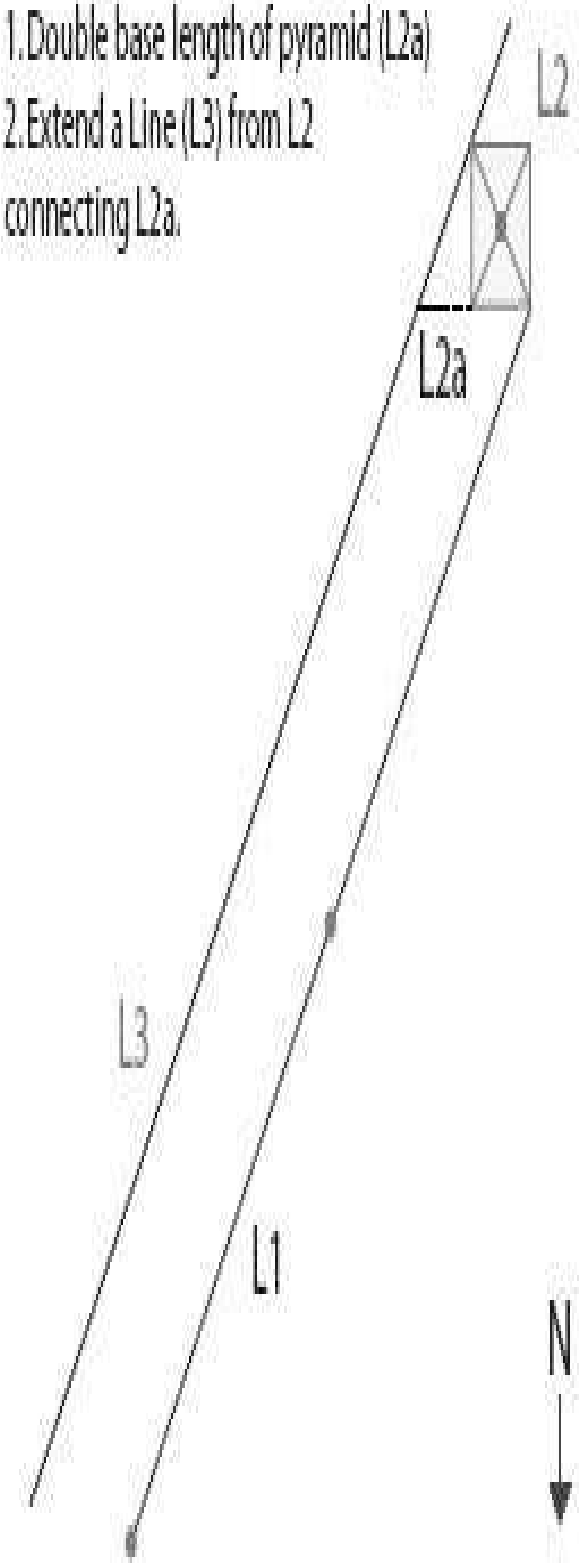
e) Orion Geostellar Fingerprint—Step 5

Square L2 Diagonal.



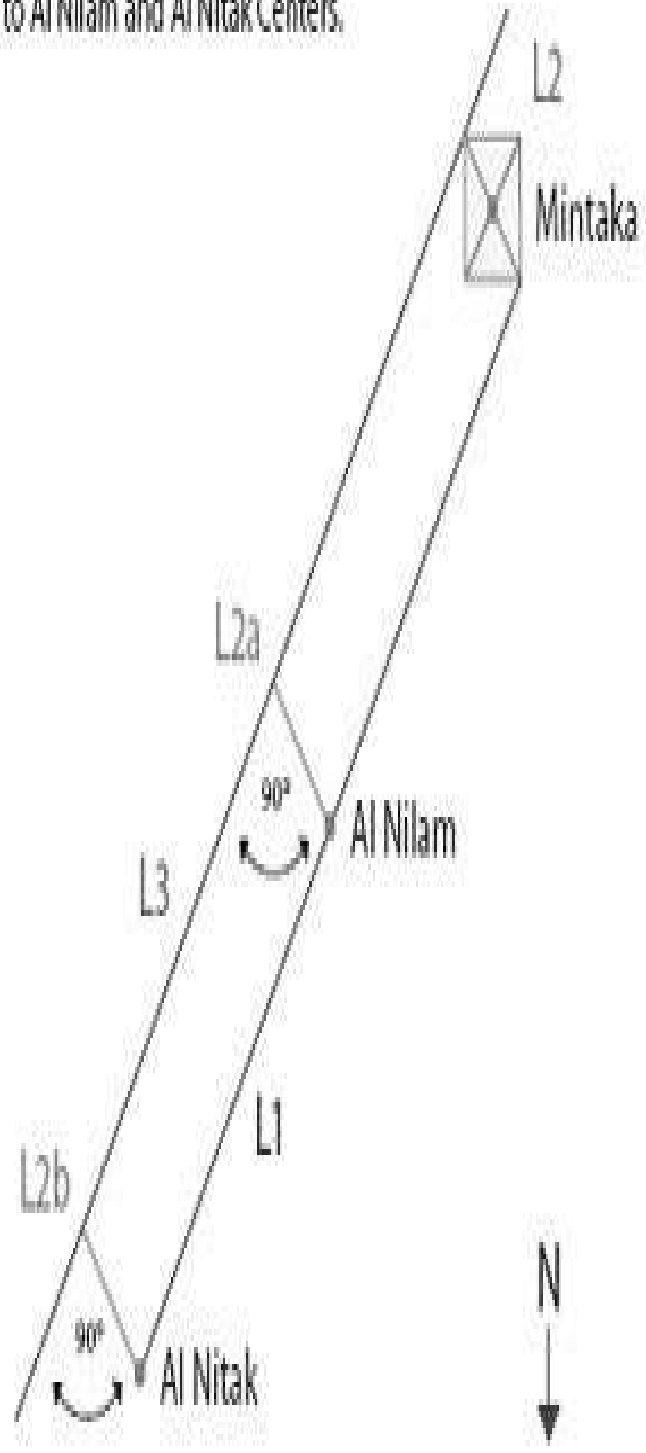
f) Orion Geostellar Fingerprint—Step 6

1. Double base length of pyramid (L2a)
2. Extend a Line (L3) from L2 connecting L2a.



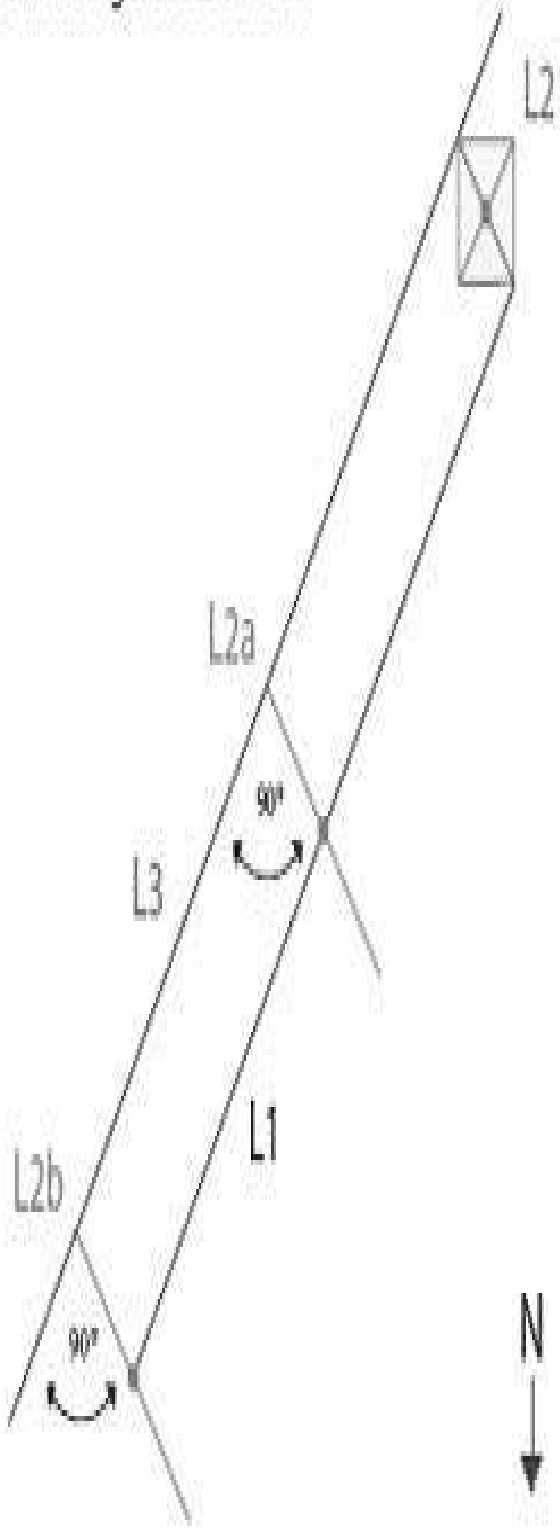
g) Orion Geostellar Fingerprint—Step 7

Extend Lines L2a and L2b at 90° from L3
to Al Nilam and Al Nitak Centers.



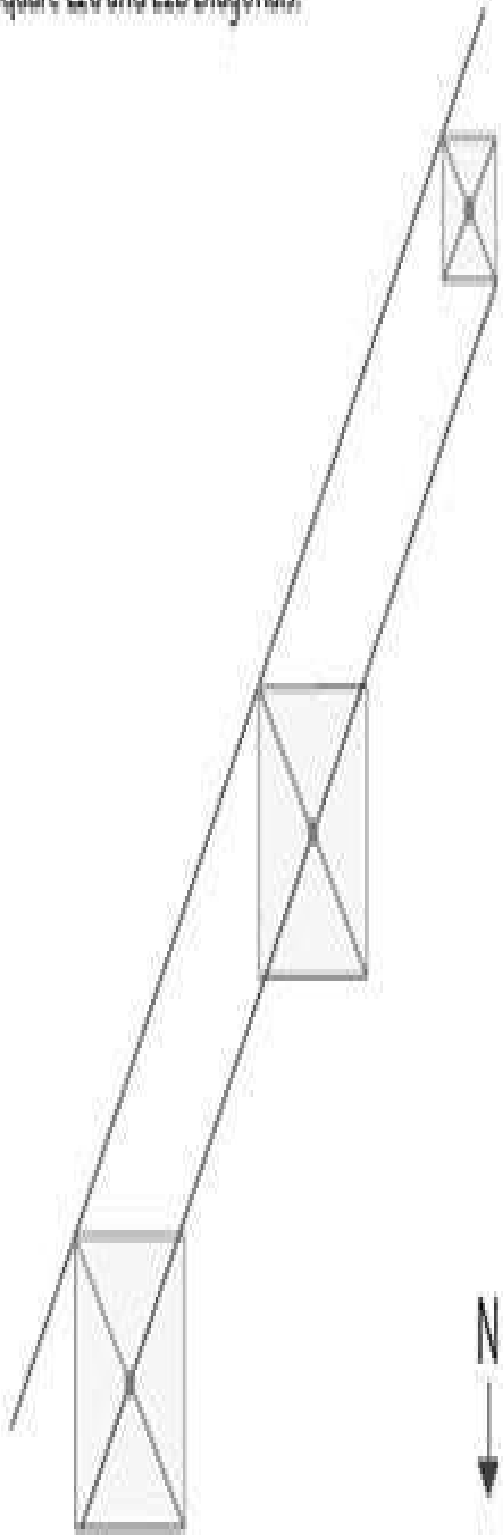
h) Orion Geostellar Fingerprint—Step 8

Double Length of L2a and L2b.



i) Orion Geostellar Fingerprint—Step 9

Square L2a and L2b Diagonals.



j) Orion Geostellar Fingerprint

Giza Proportional Comparison

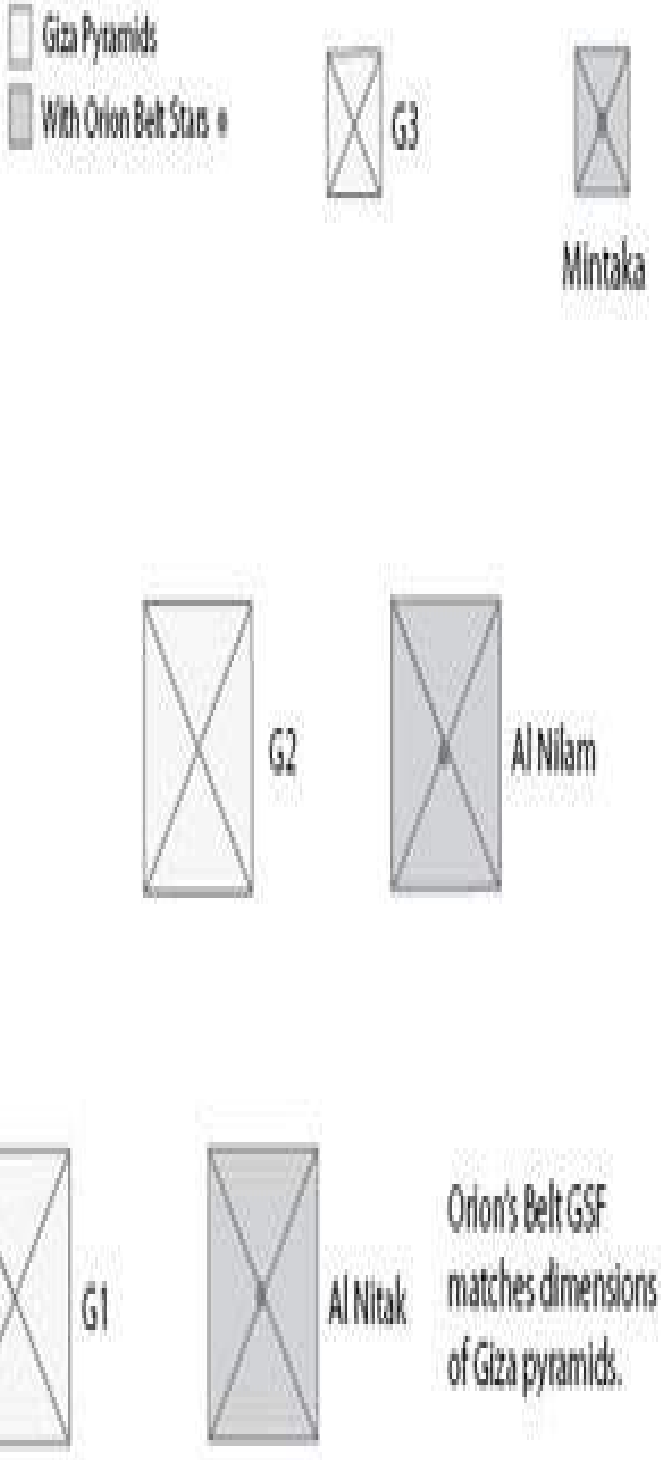


Figure 3.2a–j. Giza pyramids-Orion geostellar fingerprint comparison; © Gary Osborn

That this can be so easily demonstrated must now call into question the entire premise of the conventional tomb theory with regard to these structures, for—as a planned, unified scheme—it is simply inconceivable that they could have been planned in such a manner for the purposes of tombs, since, as already stated, the designer of this plan simply could not have known, for example, how many queens' tombs to build alongside each of the so-called kings' tombs generations into the future—yet the unified plan can be easily demonstrated and would seem highly compelling.

G3
Sphinx
G2
G1
N
a
G3
G2
© Gary Osborn
b

Figure 3.3. a) Notice how a circle circumscribing the three most outer points of the Giza pyramid field finds the rear of the Sphinx sitting precisely on the circle's circumference. b) Lines placed at regular intervals through each of the three main pyramids pass through the axis of each of G3's Queens and one of G1's Queens.

And it must follow, therefore, that if the designer of this master plan could not have known how many pyramid tombs to build for kings and queens far into the future, then the pyramids at Giza simply cannot be considered as tombs (at least not originally so), and they must have been conceived and built to serve an altogether different purpose.

Kruppside-Down?

One of the earliest critics of the Orion Correlation Theory was archaeo-astronomer Ed Krupp, who claimed that the orientation of the Belt stars as observed in the night sky did not match the layout and orientation of the Giza pyramids. We would not have felt it necessary to raise this particular issue again, since Krupp's argument has been convincingly rebutted by many eminent astronomers such as Professor Archie Roy, Professor Mary Bruck, and others. Despite this, however, detractors in various quarters continue to raise this invalid objection to the Giza-Orion association, insisting that the Giza pyramids are oriented in the wrong way to the Belt stars.

In making his objection to the OCT, Krupp had assumed that the ancient Egyptians would have placed the pyramid that represents the uppermost Belt star, Mintaka, farthest north on the plateau (it is actually farthest south), thereby agreeing with the modern convention that "up" equates to cardinal north. This would naturally find the Great Pyramid (G1)—the terrestrial counterpart of the lowest Belt s tar, Al Nitak—being placed farthest south on the plateau (figure 3.5a on page 112), thus agreeing with the modern convention that south is "lowest."

However, this is simply not how the ancient Egyptians viewed their world. To an ancient Egyptian, up equated to south, as it was in the southern sky (of the Northern Hemisphere) that their great god, Ra, would reach his highest point in the sky (meridian), and it was at the southern horizon that the source of the sacred Nile was to be found, its waters flowing from Upper Egypt (modern south) down to Lower Egypt (modern north).

But the only way to represent a group of stars that exist in three-dimensional space (i.e., that are up in the sky, one star above another) on a two-dimensional

plane (i.e., the Giza plateau) is to use the ancient Egyptian worldview that south is up and to lay out the Giza pyramids in precisely the manner that we find them today.

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Figure 3.4. Left: Aerial view of the three pyramids of Giza. North is to the bottom of the image. Right: The three stars of Orion's belt (enlarged), as they would have appeared in the southern sky ca. 10,500 BCE—reflecting the same orientation of the pyramids when looking due south. Note that the small pyramid is offset slightly to the left just like the small star (Mintaka) uppermost in Orion's Belt.

Of course, the builders could not float one pyramid above the other here on Earth, since gravity simply will not permit it. But this is precisely the perspective we must imagine to see precisely the Giza pyramids as the ancient builders probably envisaged them, floating on the plateau, one above the other (just as the Belt stars are viewed one above the other), to transpose them onto the two-dimensional plane of the Giza plateau. As one star in the Belt is higher in the sky (more up) than the others, the pyramids we see on the ground at Giza should also be imagined in this manner and not flat on the ground (figure 3.5b); that is, the most southerly pyramid on the ground (G3) should be imagined as the highest (Mintaka), G2 the next highest (Al Nilam), and G1 the lowest (Al Nitak).

If, on the other hand, we now imagine this three-dimensional pyramid view with the Ed Krupp proposed arrangement, where G1 is placed furthest south and G3 furthest north, we find that the Belt stars—no matter from which perspective you consider them (from space or from Earth, north or south)—simply cannot match the imaginary three-dimensional floating view of the pyramids at Giza (figure 3.5c).

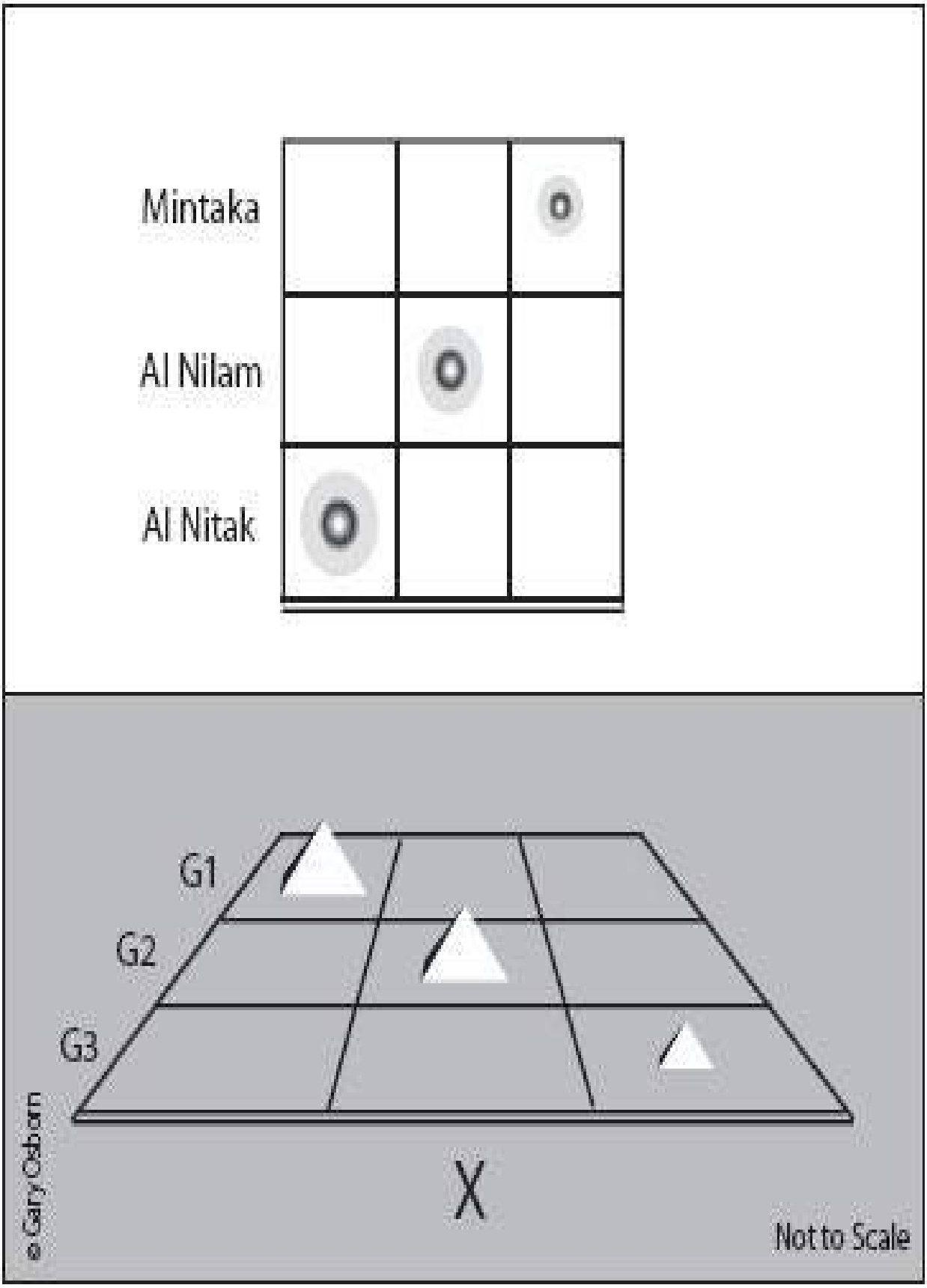
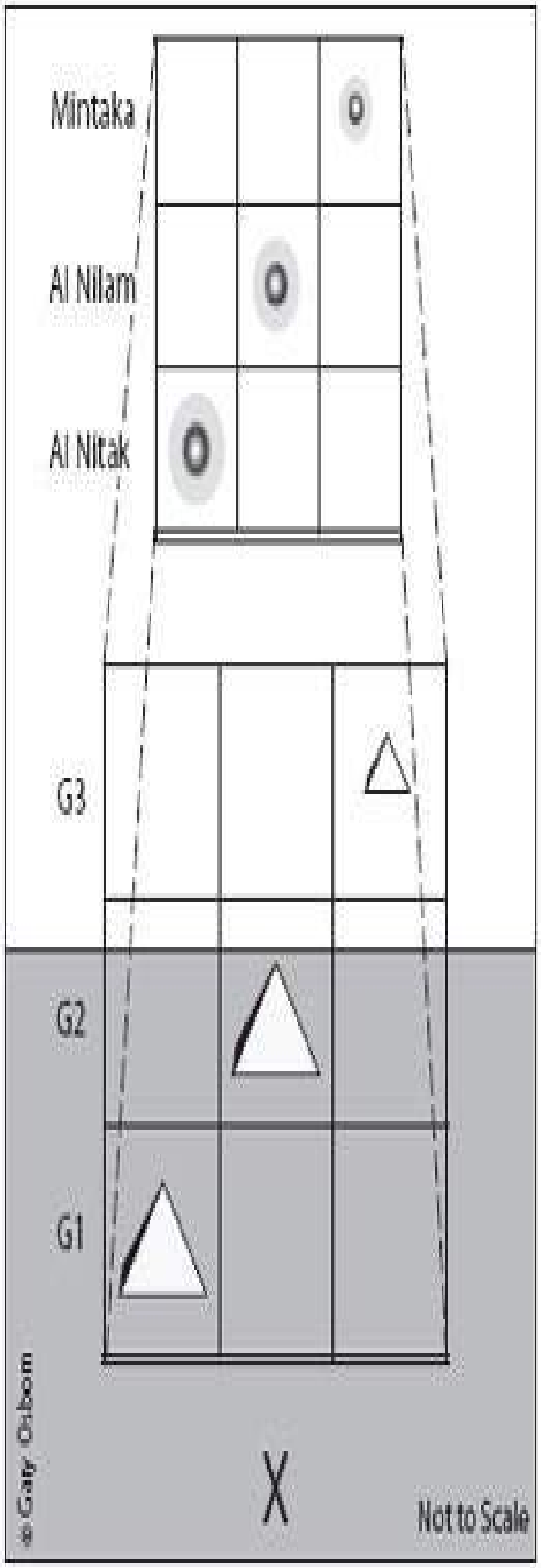

Mintaka
Al Nilam
Al Nitak
G1
G2
G3
X
Not to Scale
© Gary Osborn

Figure 3.5a. Orion’s Belt–Giza correlation as per Ed Krupp


Mintaka
Al Nilam
Al Nitak
G3
G2
G1
X
Not to Scale
© Gary Osborn

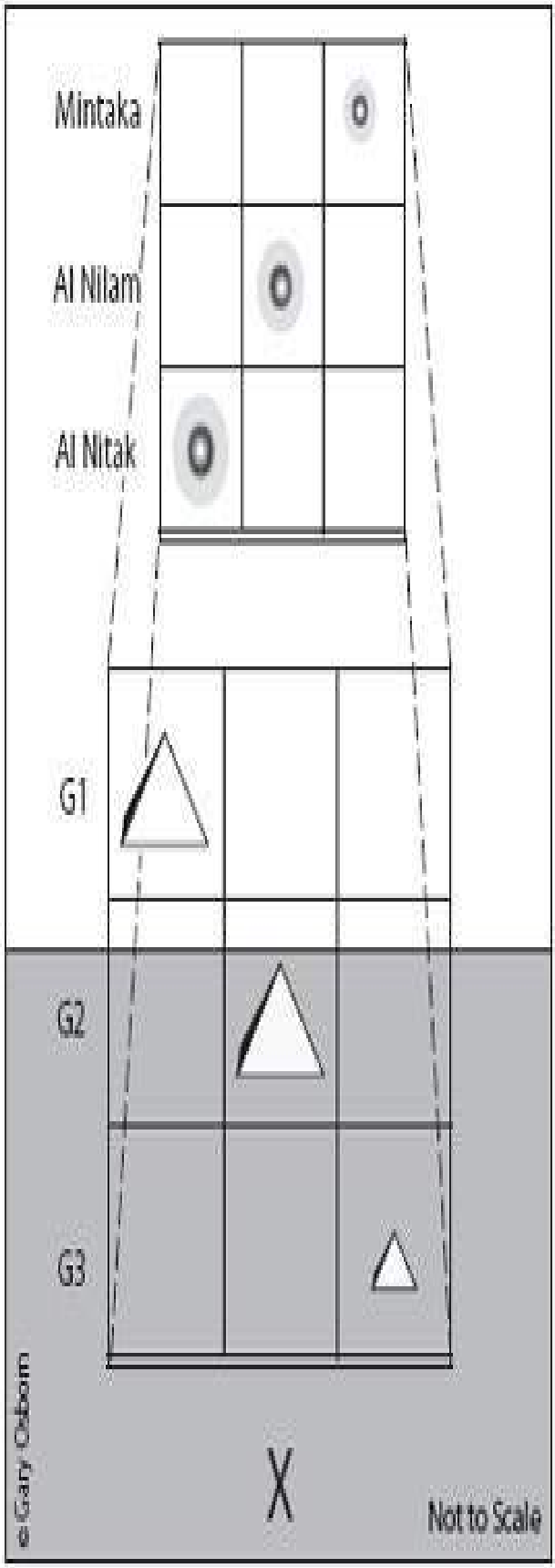
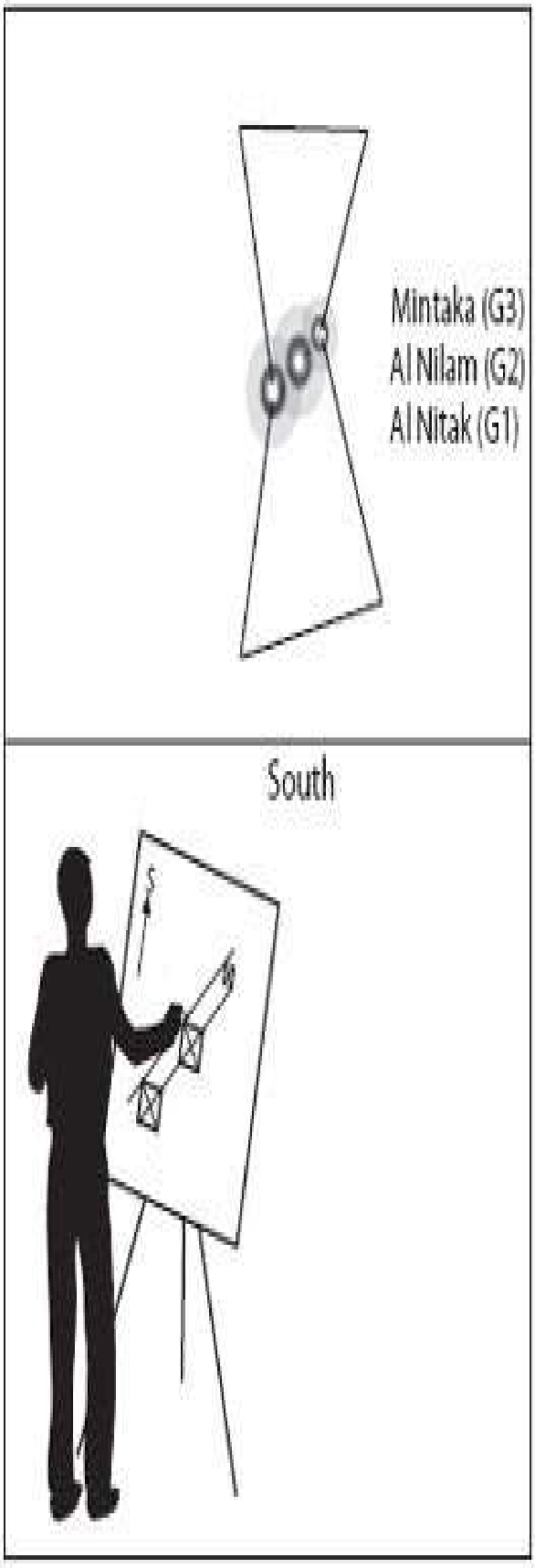

Mintaka
Al Nilam
Al Nitak
G1
G2
G3
X
Not to Scale
© Gary Osborn

Figure 3.5b (left). With the pyramids floating ever higher (in three-dimensional space), the Giza-Orion correlation fits perfectly.

Figure 3.5c (right). The Ed Krupp 3-D view of the pyramids does not correlate.


Mintaka (G3)
Al Nilam (G2)
Al Nitak (G1)
South
© Gary Osborn

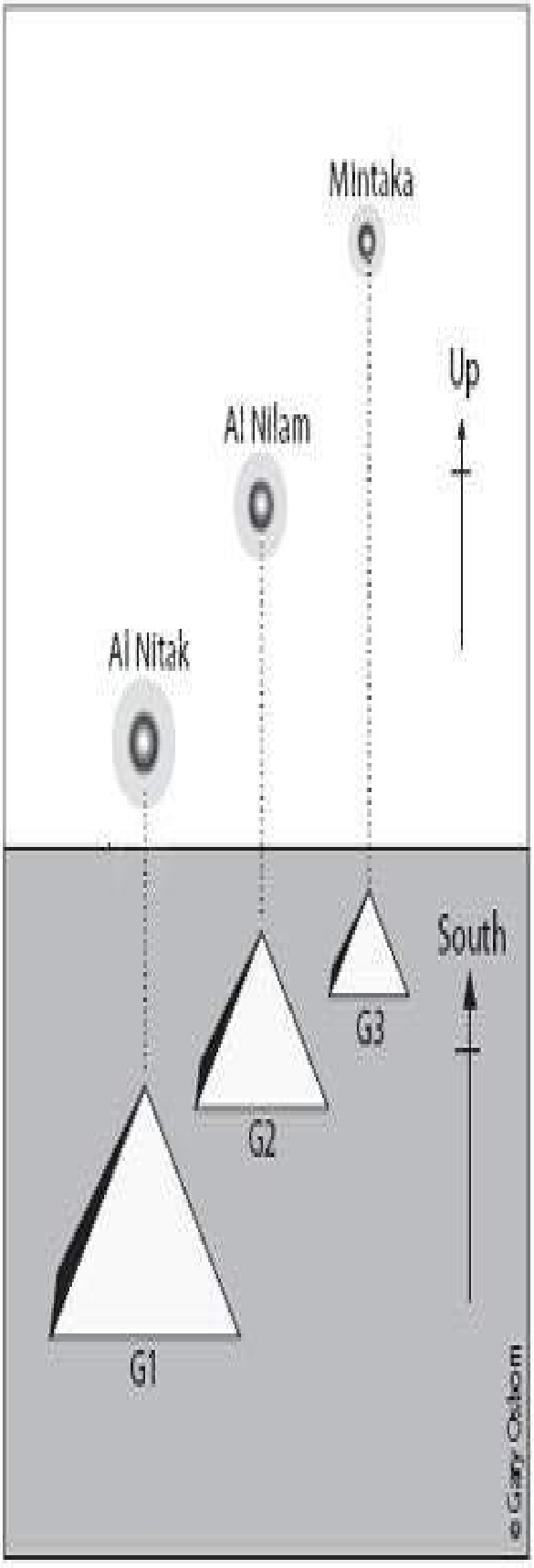

Mintaka
Up
Al Nilam
Al Nitak
South
G3
G2
G1
© Gary Osborn

Figure 3.5d (left). Drawing Orion's Belt on the south horizon at Giza

Figure 3.5e (right). Orion's Belt looking to the south horizon at Giza (note: not to scale)

So it makes perfect sense that the ancient Egyptians would place the smallest of the three pyramids (G3) at the uppermost (southerly) location on the two-dimensional plateau, since its stellar counterpart, Mintaka, is seen at the uppermost position of Orion's Belt when observed in the night sky. And it is perfectly understandable why the ancient Egyptians should view their world in this manner, north is down, south is up. If we were to stand at Giza with a drawing board and plot the Belt stars as they appear due south in the night sky (they cannot be viewed in the northern part of the sky), we would draw what we see in figures 3.5d and 3.5e.

Even Ed Krupp's wife, when invited by Graham Hancock to draw the layout of Orion's Belt on a sheet of paper, placed Mintaka to the top of the sheet, thereby mimicking the ancient Egyptian worldview that south equated to up.[1] The placement of Mintaka (G3) at the top of the page is entirely intuitive.

Queens of Precession

While the Orion geostellar fingerprint presents highly compelling evidence of a geometrical connection between the three main Giza pyramids, the Queens' Pyramids, and the Orion Belt stars, further independent corroboration of such an association is desirable to further strengthen the hypothesis.

If it could be shown that other pyramid structures at Giza also present a demonstrable and quite fundamental connection with other aspects of the Orion Belt stars, this would provide such independent corroboration, proving the Orion-Giza hypothesis—if not conclusively, then certainly beyond reasonable doubt.

It would seem that such independent corroboration can indeed be found in the relative placement of the two sets of three Queens' Pyramids on the plateau. Before presenting this corroborating evidence of an Orion association with the two sets of Queens' Pyramids, we should first take a moment to understand the astronomical phenomenon referred to by astronomers as precession, or, more fully, precession of the equinoxes.

We are familiar with Earth's daily (diurnal) rotation of twenty-four hours. We are also familiar with Earth's second motion, its annual 365day rotation (orbit) around the sun. Earth, however, possesses a third, much less perceptible motion known as precession, which is caused by the fact that Earth has a very slight wobble as it rotates on its axis. It is believed that this wobble is caused by the torque forces exerted by the sun and the moon on Earth at the equator, causing Earth to flatten and bulge.

The present 23.43° obliquity (incline) of Earth's rotational axis causes the sun and moon (at separate times) to be either above Earth's equatorial plane or below it, and so the gravitational forces of the sun and moon are constantly tugging upward or downward on Earth's bulge at the equator. It is the gravitational pull of the sun and moon that keeps the angle of Earth's axis steady and within a limited obliquity range (theorized to oscillate between 22.1° and 24.5° over 41,000 years). If the sun or the moon suddenly disappeared, the obliquity (angle) of Earth's rotational axis would change instantly and drastically.

The axis takes 71.6 years to complete 1° of precessional shift. At present, Earth's polar axis is aligned to the star Polaris—the present polestar. Around the time of the Old Kingdom, the polestar would have been Thuban.

Precession can be likened to a child's spinning top. As the top begins to slow down and lose its momentum, the weight of the top begins to displace itself, and it then begins to wobble (and eventually topples). Earth—being an oblate sphere (slightly flattened)—is like the spinning top, the only difference being that its cyclical wobble is moving at a more or less constant speed over long periods, continually altering the direction of Earth's polar axis.

The effect of the precessional wobble is to alter the positions of the stars over long periods. If viewed looking due south (or north), this precessional wobble would appear as a nodding motion taking approximately 26,000 years—a 13,000-year downward nod and a 13,000-year nod back up again to the point of origin. The stars looking due south would appear to move up and down on the horizon like an elevator.

25,776 - Year Precessional Cycle

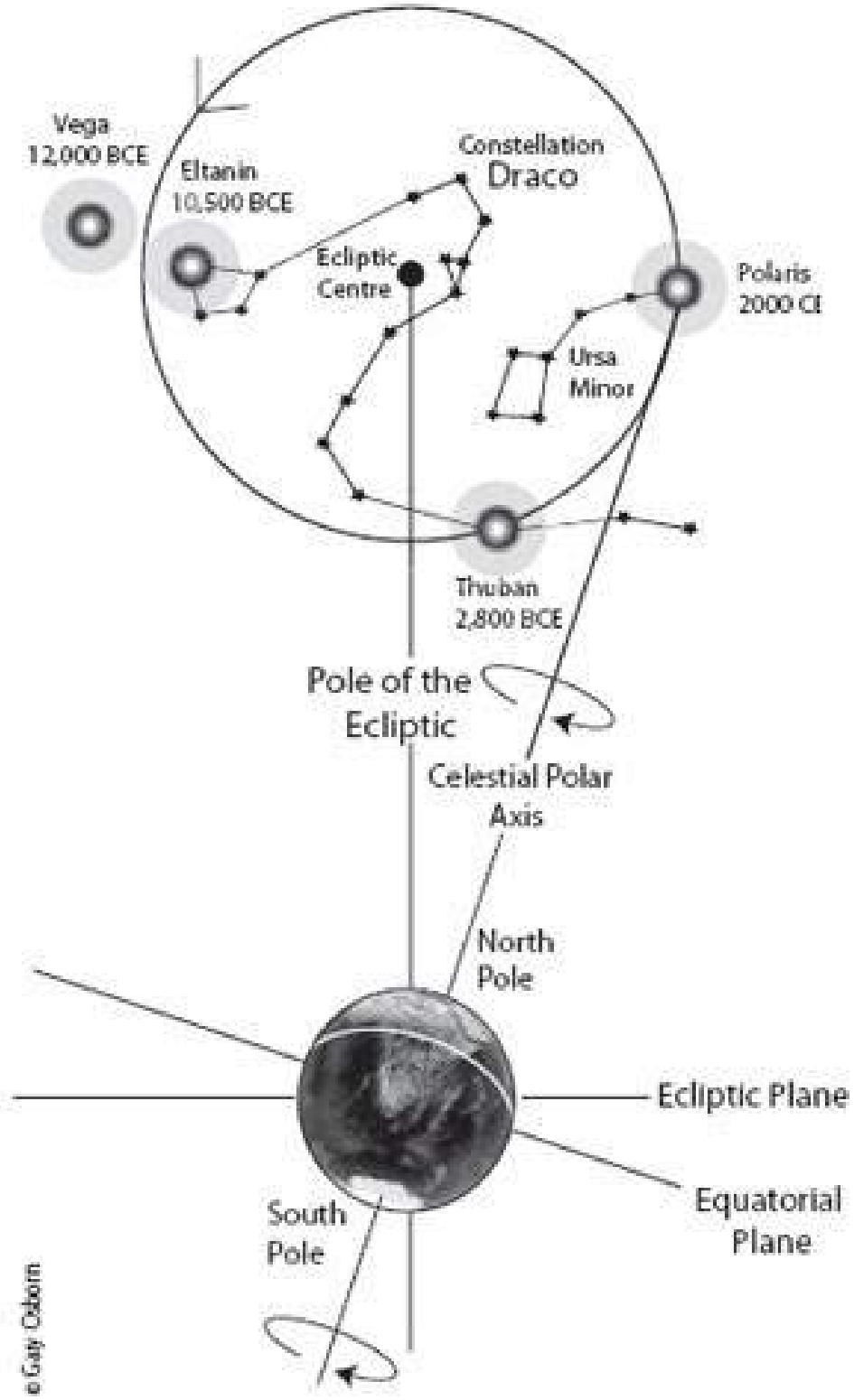


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Figure 3.6. The 25,776-year cycle of precession traced in the heavens by the Earth's axis

Another visible effect of precession is that the rising and setting points of the stars would drift, shifting 1° around the horizon approximately every 72 years. After approximately 13,000 years, this shifting of the stars around the horizon would suddenly stop. The stars would change their direction and begin shifting back around the horizon to their point of origin. And so the pendulum-like cycle continues—indefinitely.

In other words, this slow wobble causes Earth's axis to regress or precess—in that like a gyroscope, the axis wobbles slowly in a clockwise direction as Earth turns counterclockwise, causing the axis to trace a large abstract circle in the heavens, which, by today's agreed estimate, is more precisely calculated as taking 25,776 years to complete one full precessional cycle. It is believed that some ancient civilizations understood precession and used the roughly accurate Platonic figure of 25,920 years to reference one complete precessional cycle known as the Great Year.

As shown in figure 3.6, like the ancient Egyptian sun symbol (a circumpunct, a circle with a dot in the center), the central axis of this precessional revolution is called the pole of the ecliptic, and the central and unmoving still point in the heavens, which the abstract pole of the ecliptic is pointing to, is called the ecliptic center.

So why is this geophysical phenomenon known as the precession of the equinoxes?

Well, first of all, like every circle, the cycle around this still point is divided into 360°. From our perspective on Earth, the zodiac is seen to move behind the sun in a clockwise direction—each sign being completed in a month and the whole zodiac completed in a year.

This is really due to Earth's counterclockwise orbit around the sun, which, again, takes a year to complete. But again, the precessional axis is also moving forward (clockwise) slowly—at a rate of 71.6 years per degree, going by today's calculations. Because Earth turns counterclockwise on its rotational axis, this means that the sun is seen to slip backward very slowly through the twelve constellations of the zodiac.

The measurement of this movement is determined by observing the rising position of the sun on the spring equinox every year, which is seen to slip slowly backward through the zodiac, again at a rate of 1° every 71.6 years—or 72 years, the rough estimate used by the ancients.

At present we are living in the Age of Pisces, which began around 1 CE, and so every year on the spring equinox, the sun is seen to rise against the zodiacal constellation of Pisces. In other words, the sun is slipping backward slowly in a clockwise direction from Pisces toward the Age of Aquarius—but won't reach the constellation of Aquarius for another 400 years or so. More than 2,000 years ago, the sun would have been seen to rise against the stars of the constellation of Aries at the spring equinox, and 2,000-plus years before that, the sun would have been seen to rise against the stars of the constellation of Taurus at the equinox.

To summarize: when we look at the night sky, we observe the stars slowly rotating in a continual east-to-west direction. Over some 13,000 years, however, the stars in our night sky (when viewed setting or rising on the horizon) actually slowly drift in a west-to-east (retrograde) direction before stopping, and then, over a further 13,000 years, drift slowly back to their point of origin—much like the swing of a clock's pendulum.

One beneficial aspect of this precessional drift is that it can be used as a mechanism for marking a specific moment (date) over very long periods, for marking times when perhaps some significant event occurred (or might occur in the future). For example, by aligning two stone obelisks with a setting star precisely at 200° azimuth (degrees clockwise from true north), we are effectively marking that specific moment (date) in time. Over the passing years and decades, the target star at 200° azimuth continues its slow drift around the horizon, leaving the alignment with the obelisks far behind. As the centuries pass, the obelisks will no longer be in alignment with the target star but will serve as a legacy date marker—an astronomical record—of where the target star once rose or set at a particular point on the horizon.

With the target star known to us and then observing where it sets (or rises) today —for example, at 210°—we can extrapolate that it has drifted some 10° from its alignment with the obelisks (at 200°), which, in turn, tells us that the alignment was created approximately 720 years in the past, since 72 years equals approximately 1° of precessional drift.

Similarly, when we now consider the pyramid structures at Giza, we find an alignment of those structures with the Orion Belt stars as they appeared on the southwest horizon ca. 10,500 BCE. Specifically, this alignment involves the smallest of the three great pyramids—the pyramid of Menkaure—and its stellar counterpart, the star Mintaka in Orion's Belt. Mintaka in this instance is the target star through which the pyramids of Menkaure and Rachaf (our two alignment obelisks) are aligned (figure 3.7a).

In ca. 10,460 BCE, the star Mintaka set close to the southwest horizon at 212° azimuth (212° clockwise from due north). When considering the Giza pyramids, we find that the alignment from the apex of Rachaf 's pyramid (G2) through the apex of Menkaure's pyramid (G3)—consider these as two obelisks—is also set at 212° azimuth.

At the very same moment—as pointed out by Bauval and Hancock in their book Keeper of Genesis—the three so-called Queens' Pyramids of Menkaure are placed in a horizontal line close to the (artificial) southwest horizon, thereby mimicking the arrangement of the three Belt stars, which are similarly arranged at that precise moment before setting on the southwest horizon (figure 3.7b).

Significantly, this alignment with Menkaure/Mintaka and the Menkaure Queens' Pyramids with the three Belt stars occurs at a unique moment in the precessional pendulum swing of the Orion Belt stars as they drift imperceptibly slowly around the horizon. This unique moment—marked by the 212° Rachaf/Menkaure/Mintaka alignment and corroborated by the arrangement of Menkaure's three Queens' Pyramids—is the very moment the Belt stars appear to stop, reverse their precessional direction, and begin their 13,000-year journey around the horizon and back to their point of origin. This unique moment in ca. 10,500 BCE is known as the precessional minimum culmination and can be likened to the sun reaching meridian, its highest point in the sky. After another 13,000 years drifting in the opposite direction, the Belt stars will reach their precessional maximum culmination around the year 2500 CE (figure 3.7c), stop, and change direction again, and so this precessional pendulum swing of the Belt stars continues—forever.

And there is yet more evidence to present regarding this quite extraordinary relationship between the Giza pyramids and the Orion Belt stars. As already mentioned, the stars drift around the horizon much like a clock's pendulum, moving imperceptibly slowly between their minimum and maximum precessional culminations. We have observed already how the Menkaure Queens' Pyramids appear to have been placed as markers to indicate the precessional minimum culmination of the Orion Belt stars, when these stars were setting horizontally on the southwest horizon. This then raises the obvious question, how and where will the Belt stars be aligned when rising at their precessional maximum culmination? When we consult astronomical software, we find this will occur on the future date of around 2500 CE.

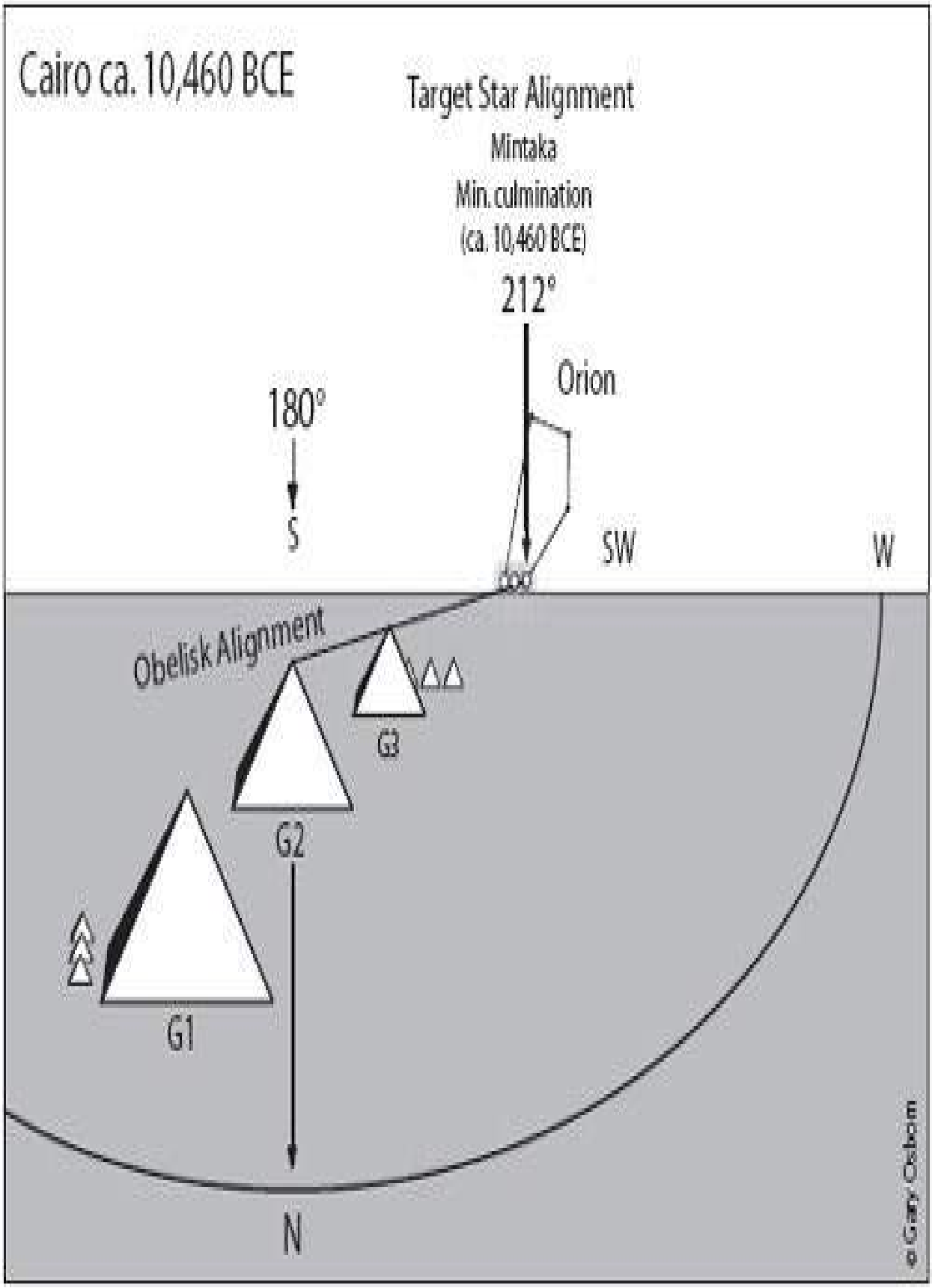
Cairo ca. 10,460 BCE
Target Star Alignment
Mintaka
Min. culmination
(ca. 10,460 BCE)
212°
Orion
180°
S
SW
W
Obelisk Alignment
G3
G2
G1
N
© Gary Osbom

Figure 3.7a. Menkaure is aligned with Mintaka at 212° azimuth ca. 10,460 BCE.

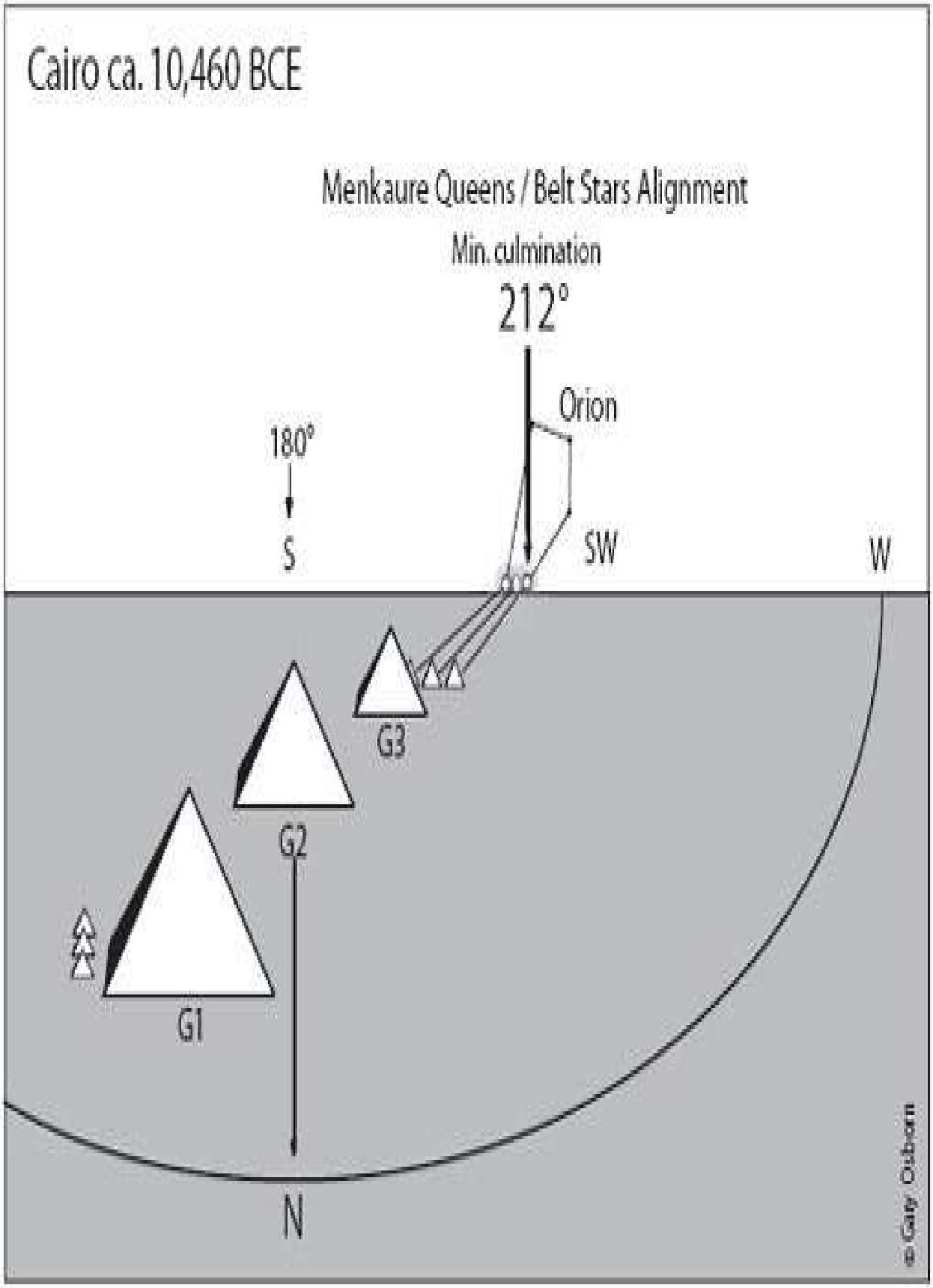
Cairo ca. 10,460 BCE
Menkaure Queens / Belt Stars Alignment
Min. culmination
212°
Orion
180°
S
SW
W
G3
G2
G1
N
© Gary Osborn

Figure 3.7b. Menkaure's Queens' Pyramids align horizontally with the Belt stars ca. 10,460 BCE.

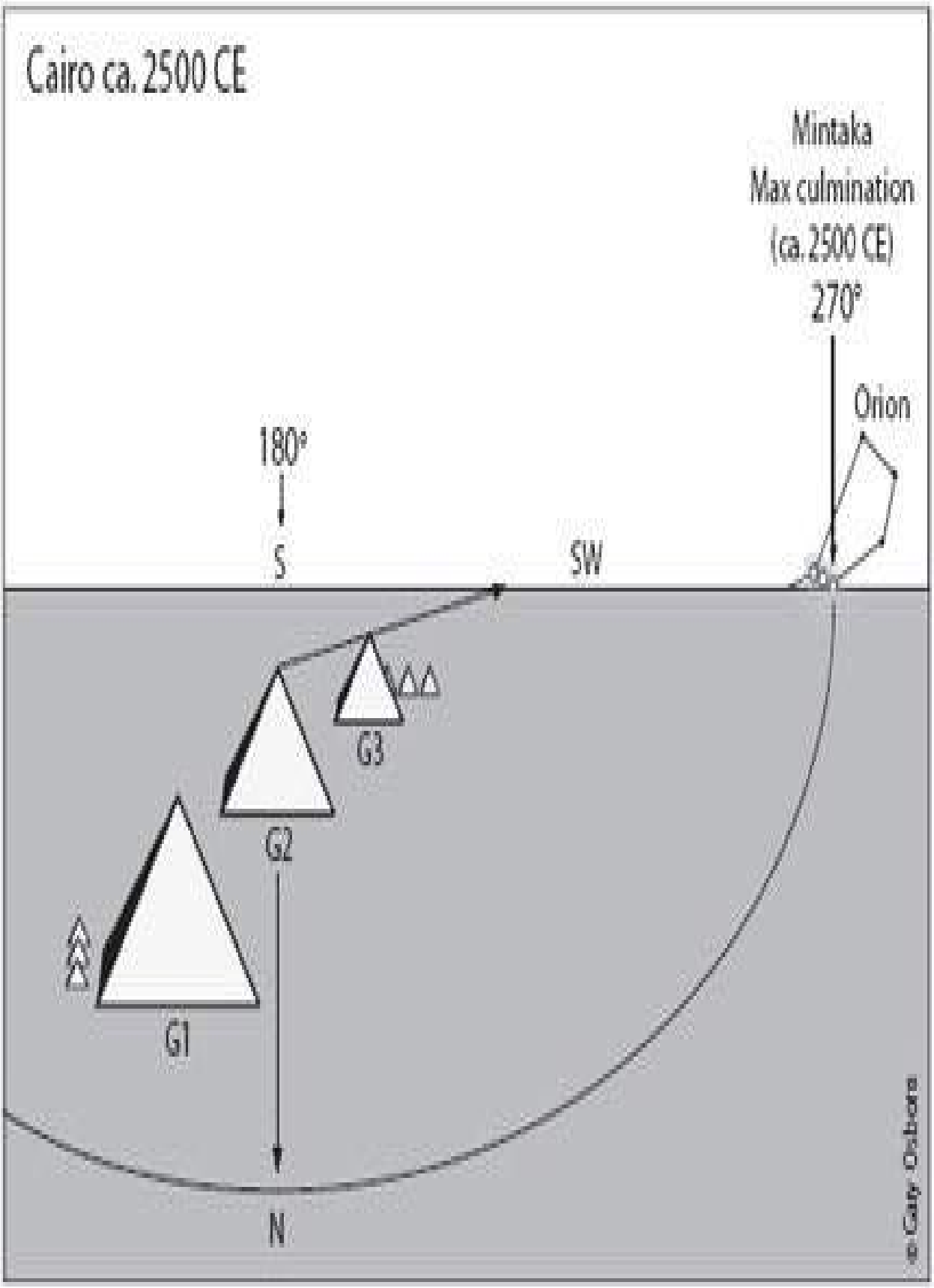
Cairo ca. 2500 CE
Mintaka
Max culmination
(ca. 2500 CE)
270°
Orion
180°
S
SW
G3
G2
G1
N
© Gary Osborn

Figure 3.7c. Mintaka drifts around the horizon to its maximum culmination around 2500 CE.

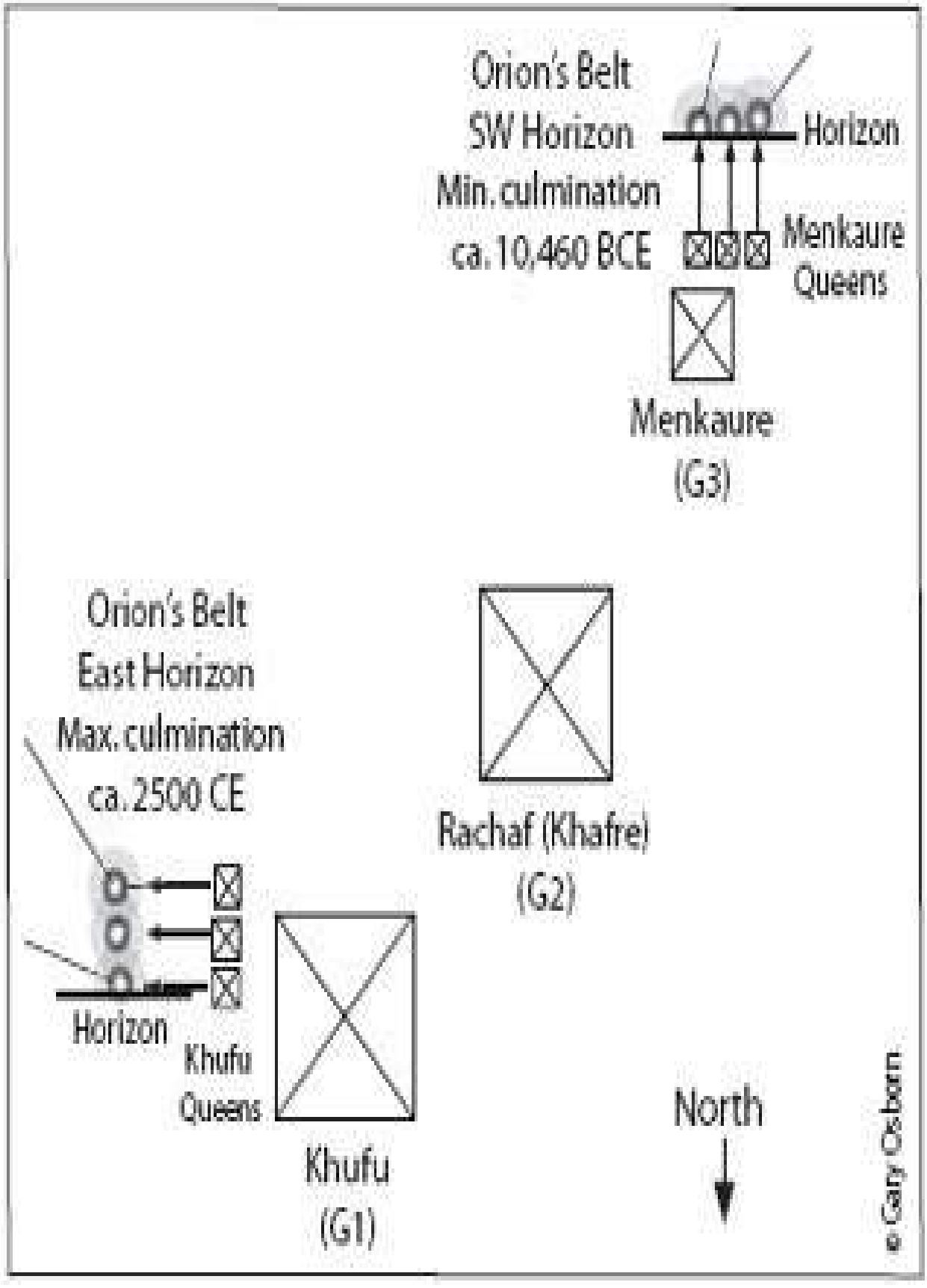
Orion's Belt
SW Horizon
Min. culmination
ca. 10,460 BCE
Horizon
Menkaure
Queens
Menkaure
(G3)
Orion's Belt
East Horizon
Max. culmination
ca. 2500 CE
Rachaf (Khafre)
(G2)
Horizon
Khufu
Queens
Khufu
(G1)
North
© Gary Osborn

Figure 3.7d. The Queens' Pyramids mimic Belt stars at maximum (setting) and minimum (rising) culmination.

Another quick check of our astronomical software reveals that the Belt stars will rise at maximum culmination on the eastern horizon, rotated 90° (i.e., perpendicular) to the stars setting at minimum culmination in ca. 10500 BCE. Astonishingly, this is precisely the arrangement in which the other three Queens' Pyramids to the east of Khufu's Great Pyramid have been placed (figure 3.7d).

It is also worth noting here that the two sets of Queens' Pyramids serving as the markers of the two precessional culminations of the Belt stars might help explain the otherwise curious absence of any queens' pyramids of Rachaf (G2), a pharaoh who reputedly had (at least) five queens. Since the Belt stars have only two culminations (maximum and minimum), only these two unique moments in the precessional cycle (the end points of the pendulum swing) need be demonstrated with two sets of Queens' Pyramids (of Khufu and Menkaure). Thus the curious absence of Rachaf 's Queens' Pyramids is simply and logically explained: there are only two culminations (two turning points), one on the eastern horizon (rising) and the other close to the southwest horizon (setting).

In conclusion, the two sets of Queens' Pyramids at Giza demonstrate the precessional minimum (setting) and maximum (rising) culminations of the Orion Belt stars, a process that takes some 13,000 years to complete one half-cycle. That such sophisticated astronomical information is being exhibited to us in plain view at Giza is truly extraordinary and provides strong corroboratory evidence to support the Orion geostellar fingerprint, which, as we have seen, can be shown to define the relative base dimensions of the three main pyramids at Giza.

So, in three distinct sets of structures at Giza (the three large pyramids and the

two sets of so-called Queens' Pyramids), the constellation of Orion seems to be clearly and unequivocally implicated. But the Orion-Giza story is not quite over yet; there is more.

One of the main points of contention that opponents of the Orion-Giza hypothesis leveled at Bauval's work was the fact that the Belt stars do not present a perfect, center-to-center correlation with the three Giza pyramid centers. The error, however, is very small, and indeed it would seem that this minor error may even have been intentional. We can reasonably deduce this from the fact that the Giza pyramid bases proportionally match the Orion geostellar fingerprint so accurately. Such an accurate match of the pyramid bases with the geostellar fingerprint bases could only have resulted from having made a near-perfect observation and recording of the Belt asterism in the first place.

Furthermore, when we place the Belt stars over the pyramid centers (with G1 and G3 as fulcrums), we find that the center star (Al Nilam) is slightly offset from its pyramid center. However, when we then circumscribe the three most outer points of the Giza pyramid field precisely within a tight circle (figure 3.8), we find something truly remarkable: the center of this Great Giza Circle (GGC) rests almost perfectly on the center of the middle Belt star, Al Nilam.

It is worth noting here also that the rear of the Sphinx sits precisely on this circumscribed circle, a feature we will examine more closely later in this book.

It seems, then, that the ancient designers of Giza measured and placed the Belt asterism with high accuracy on the ground at Giza but for some reason decided to place the pyramid attributed to Rachaf (G2) slightly offset from the Al Nilam/GGC center. But why should they have chosen to do this? What significance could there be in slightly shifting G2 from its theoretical position in the blueprint?

Uniquely for Rachaf ’s pyramid, it has two entrances, a feature that some scholars (Edwards, Verner, Fakhry, and Maragioglio and Rinaldi) regard as perhaps indicating that the location of Rachaf ’s pyramid was changed from an earlier planned location that would have placed it slightly further north and east of where it presently stands. This view agrees with the findings of the Orion geostellar fingerprint and the center of the Great Giza Circle.

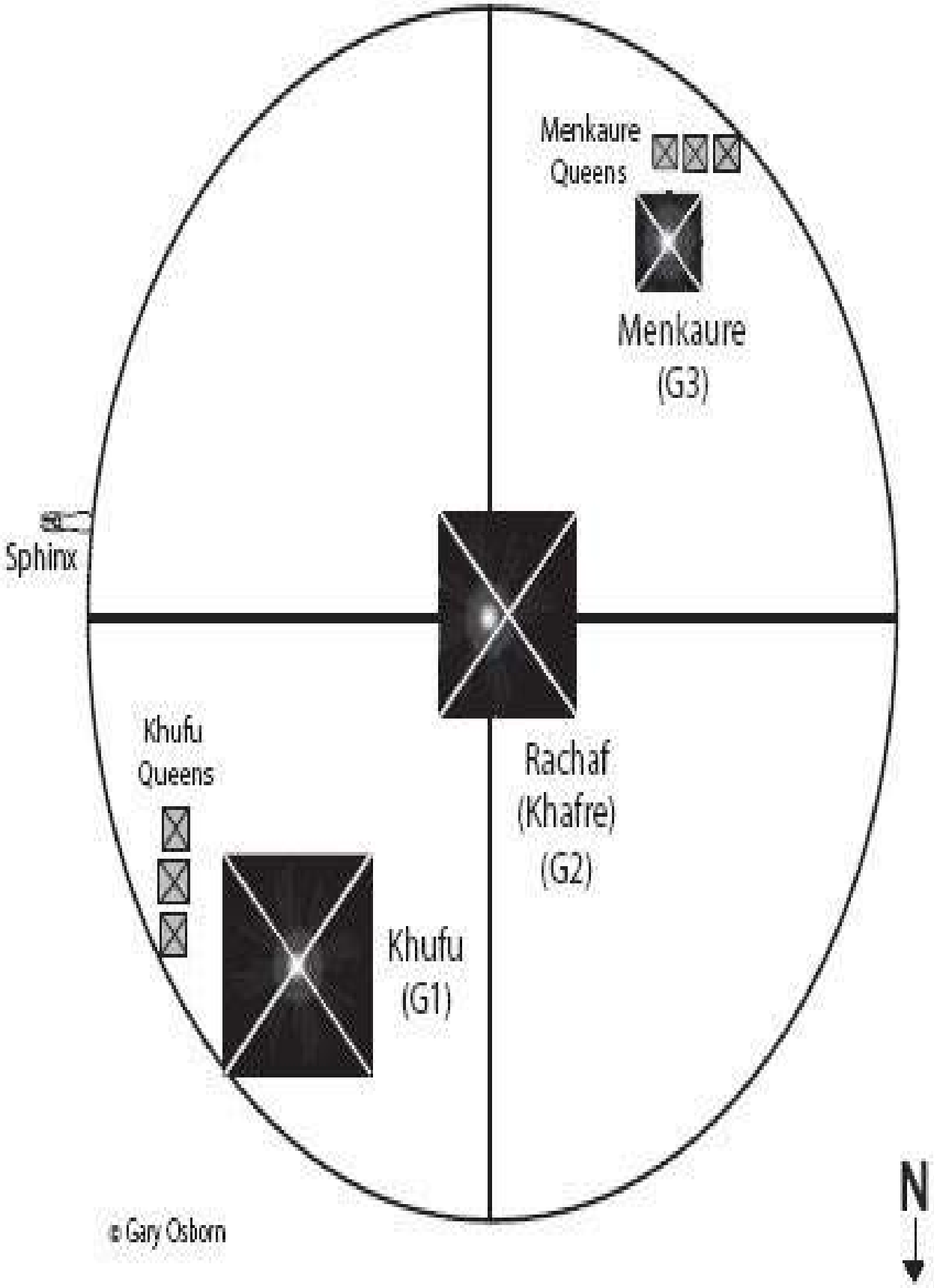
Menkaure
Queens
Menkaure
(G3)
Sphinx
Rachaf
(Khafre)
(G2)
Khufu
Queens
Khufu
(G1)
© Gary Osborn
N

Figure 3.8. Belt stars overlaid on pyramid centers G1 (Al Nitak) and G3 (Mintaka) as fulcrums. The Great Giza Circle pinpoints Al Nilam at the center with G2's center slightly offset; Sphinx sits precisely on circle's perimeter.

Furthermore, by making this slight shift of G2 from its original planned position, we find another quite remarkable correlation with the Orion Belt stars. If we now look at the Giza site plan, we can see that the center pyramid is moved slightly off the Lehner line, the line from which all three pyramid bases were defined as per the geostellar fingerprint we observed earlier (figure 3.9a).

The answer to this divergence of G2 from the Lehner line (from whence its base was defined) may be remarkably simple. If we consider the Belt stars in the sky and imagine a line tangentially connecting Al Nitak (G1) and Mintaka (G3), what we then find is that the center star, Al Nilam (G2), lies just off this theoretical line (figure 3.9b).

Thus the divergence of G2 from the geostellar plan (line L3, the Lehner line) is simply and elegantly explained, and the concordance of Orion's Belt with the Giza pyramids is further enhanced. It may also be—as we shall see later—that by offsetting G2 from the Lehner line, the ancient designers might, in fact, be attempting to draw our attention to this particular line, highlighting that it has some other significance beyond that of the geostellar fingerprint.

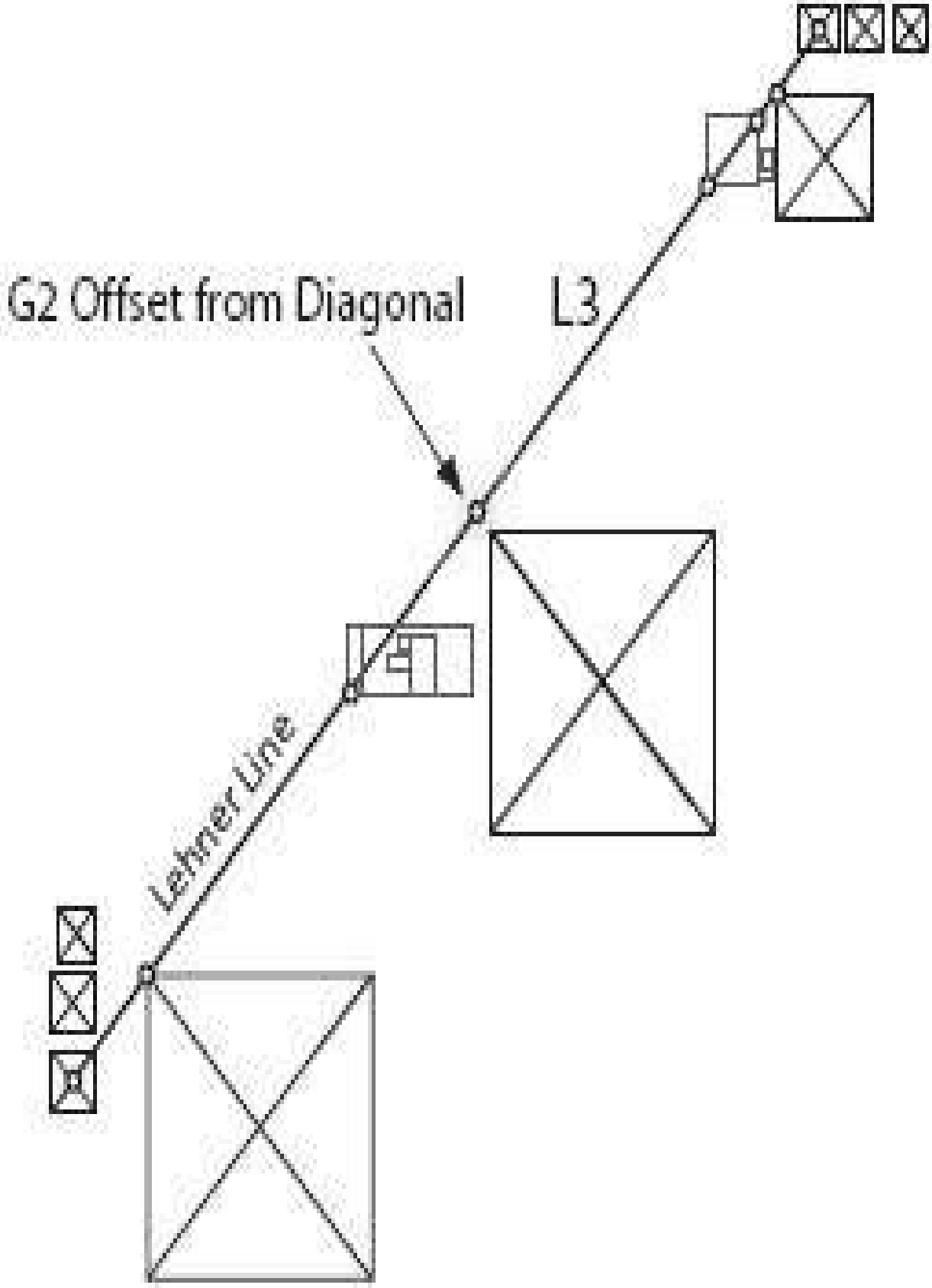
G2 Offset from Diagonal
L3
Lehmer Line

Figure 3.9a. G2 was moved slightly from the Lehner line (line L3).

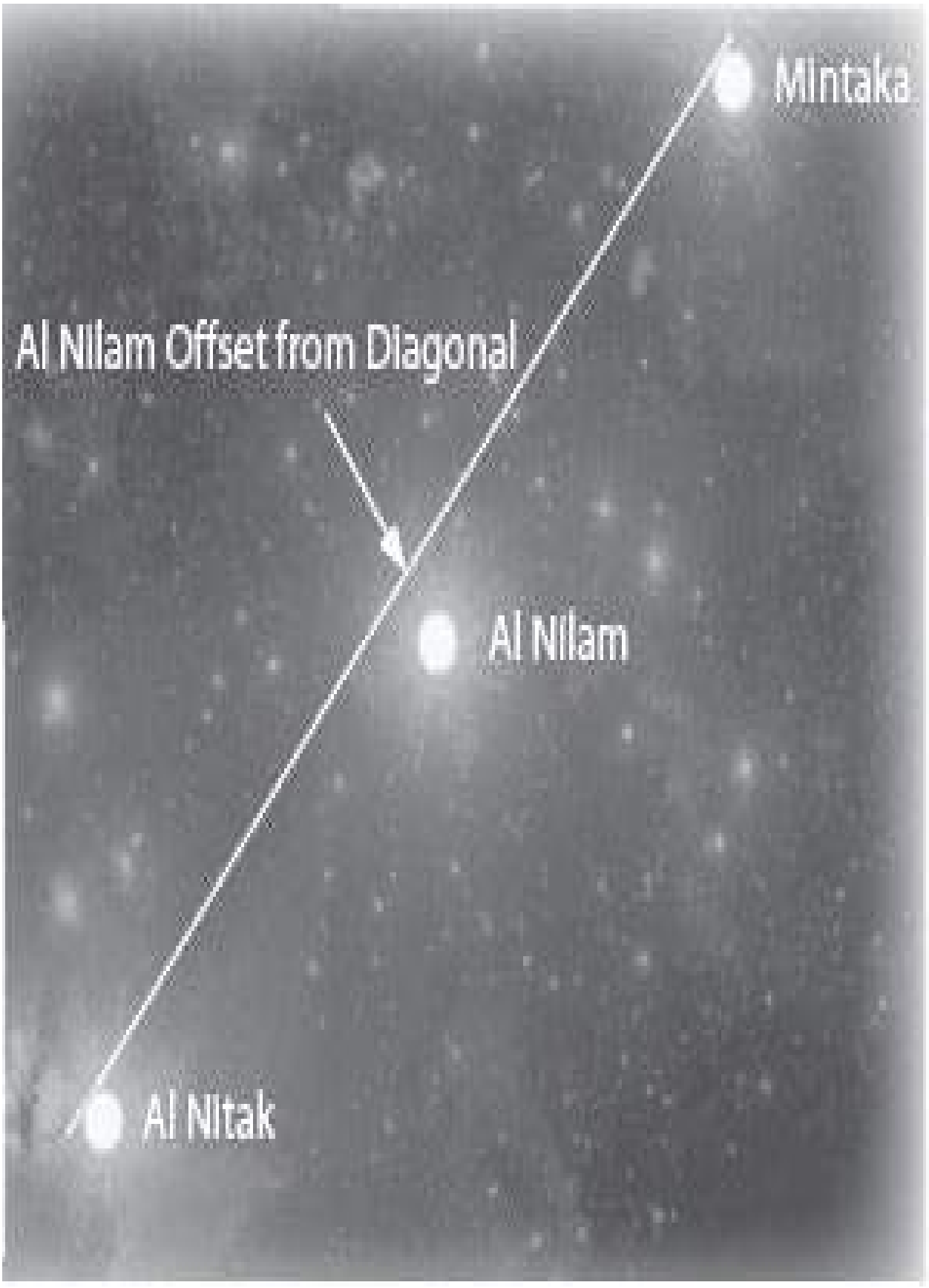
Mintaka
Al Nilam Offset from Diagonal
Al Nilam
Al Nitak

Figure 3.9b. Al Nilam (G2) is offset from line connecting Al Nitak and Mintaka.

To summarize, through the arrangement and dimensions of the various structures at Giza we are presented with multiple pieces of quite diverse evidence all highly suggestive of a connection of these pyramids with the Belt stars of the Orion constellation. Time and time and time again, we find highly significant associations between these two quite separate entities. With this mathematical and archaeo-astronomical evidence—together with the mass of cultural evidence previously cited by Bauval, Gilbert, and Hancock supporting such a correlation—for Egyptologists to continue to reject the idea that such an association was intended by the ancient designers surely now must be considered a quite untenable position.

A sufficient body of evidence (albeit circumstantial) now exists to allow us to feel reasonably satisfied that the structures at Giza were constructed with reference to a predefined master plan. The evidence presented here in support of this view may not conclusively prove an Orion-Giza association, but it is probably fair to say that if it is the weight of evidence that counts, then we have to consider that the Orion-Giza association now has sufficient weight to allow us to consider the hypothesis as highly likely—in short, the structures at Giza present a unified plan whose underlying design imperative is the Belt stars of the Orion constellation.

Giza: Clock of Ages

As stated earlier, the discovery (or rediscovery) of this unified Giza blueprint, of course, presents Egyptologists with something of a problem.

In the face of such considerable evidence of a predefined plan—an Orion association with the Giza pyramids—we have now to question the pyramids-as-tombs theory as the original purpose for which the pyramids attributed to the Old Kingdom period were conceived and built. Does it make sense that such a grand undertaking would have been designed from the outset for the purpose of a multigenerational family necropolis when they could not possibly have known how many family members they needed to build tombs for far into the future? This does not seem at all likely. As mentioned earlier, if this were the case, then why didn't the designer allow for any queens' pyramids in the master plan for Rachaf (the center pyramid, G2), who had five known wives? And how could the designer of this unified design possibly have known that the kings associated with G1 and G3 pyramids would need only three queens' pyramids each?

It seems to us that tombs were not in the thinking of the original architect of the Giza master plan, since he could not possibly have known the funerary requirements of kings and queens many decades or centuries into the future. If they were designed from the outset as tombs, then it is reasonable to assume that, from the outset, we would find in such a blueprint that queens' pyramids would have been evenly allocated to each of the main pyramids at the planning stage. Why place these three so-called Queens' Pyramids at only two of the three main pyramids if this plan represents a planned necropolis?

Or, invoking Occam's razor, might it simply be that these early giant pyramids have been wrongly attributed to the kings of the Old Kingdom period and were not planned as tombs at all, that we are not in fact looking at a planned,

multigenerational family necropolis? If the Giza blueprint we have demonstrated (through the geostellar fingerprint) is correct, then it seems to us that we are witnessing a planned, homogeneous design, not for a family necropolis but for a completely different purpose altogether.

In consideration of what we have uncovered thus far and from our exhaustive analysis of the data presented, it seems to us that the Giza structures have been carefully laid out to create a gigantic astronomical clock or calendar—a precession time line or timetable (figure 3.10a).

As briefly indicated earlier, what we can easily observe here is that the so-called Lehner line actually serves a function: it presents to us a linear time line, connecting the two culmination points of Orion's Belt as depicted by the two sets of so-called Queens' Pyramids. Between these two end points (or culmination markers), we have an astronomical time line of around 12,960 years (a precessional half-cycle). What is also observed here—as pointed out by independent researcher Don Barone—is that the Sphinx is aligned precisely to the midpoint of this linear time line (figure 3.10b).

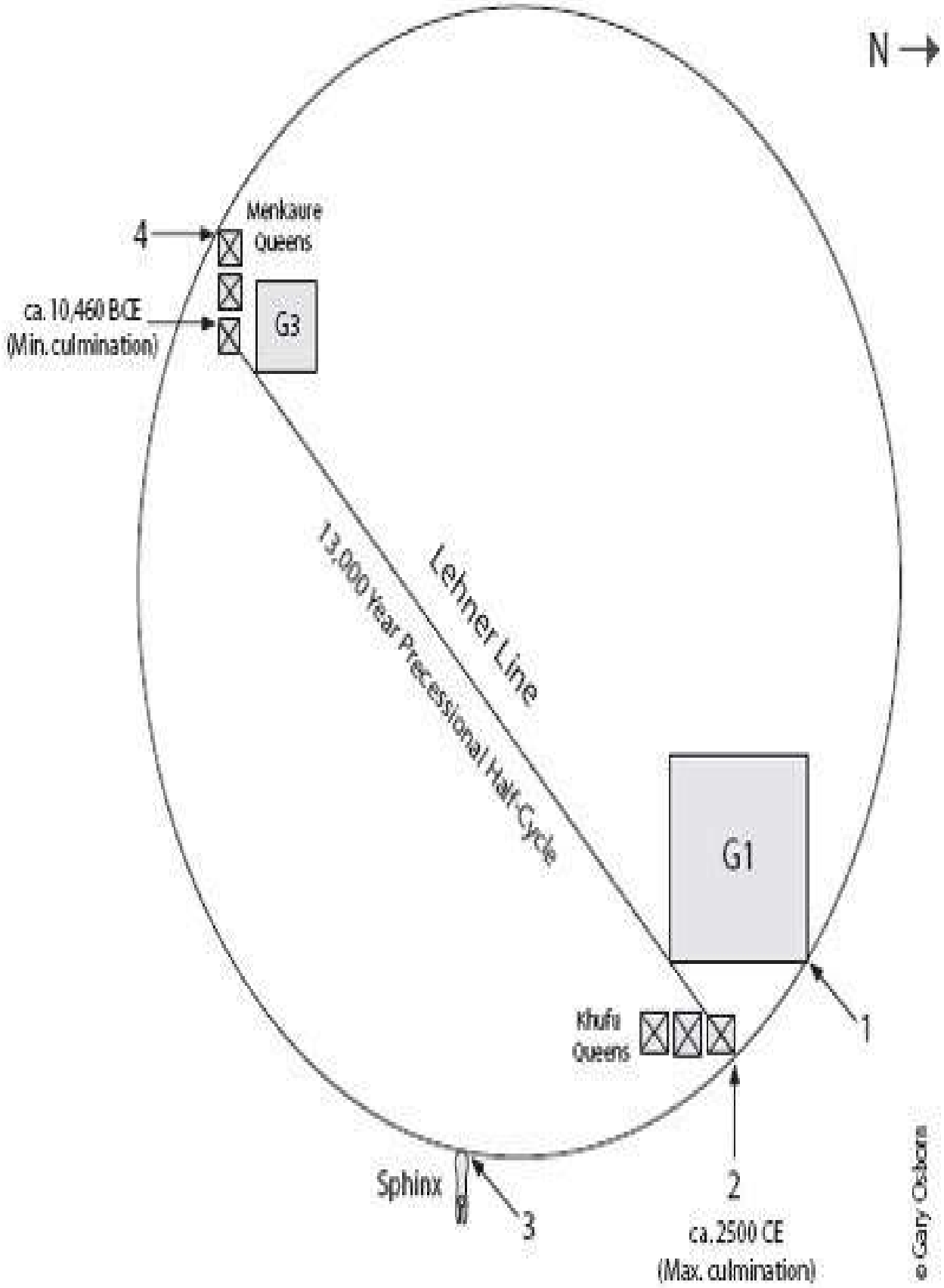
N
4
Menkaure
Queens
ca. 10,460 BCE
(Min. culmination)
G3
13,000 Year Precessional Half-Cycle
Lehner Line
G1
Khufu
Queens
1
Sphinx
3
2
ca. 2500 CE
(Max. culmination)
© Gary Osborn

Figure 3.10a. The Giza-Orion precession time line

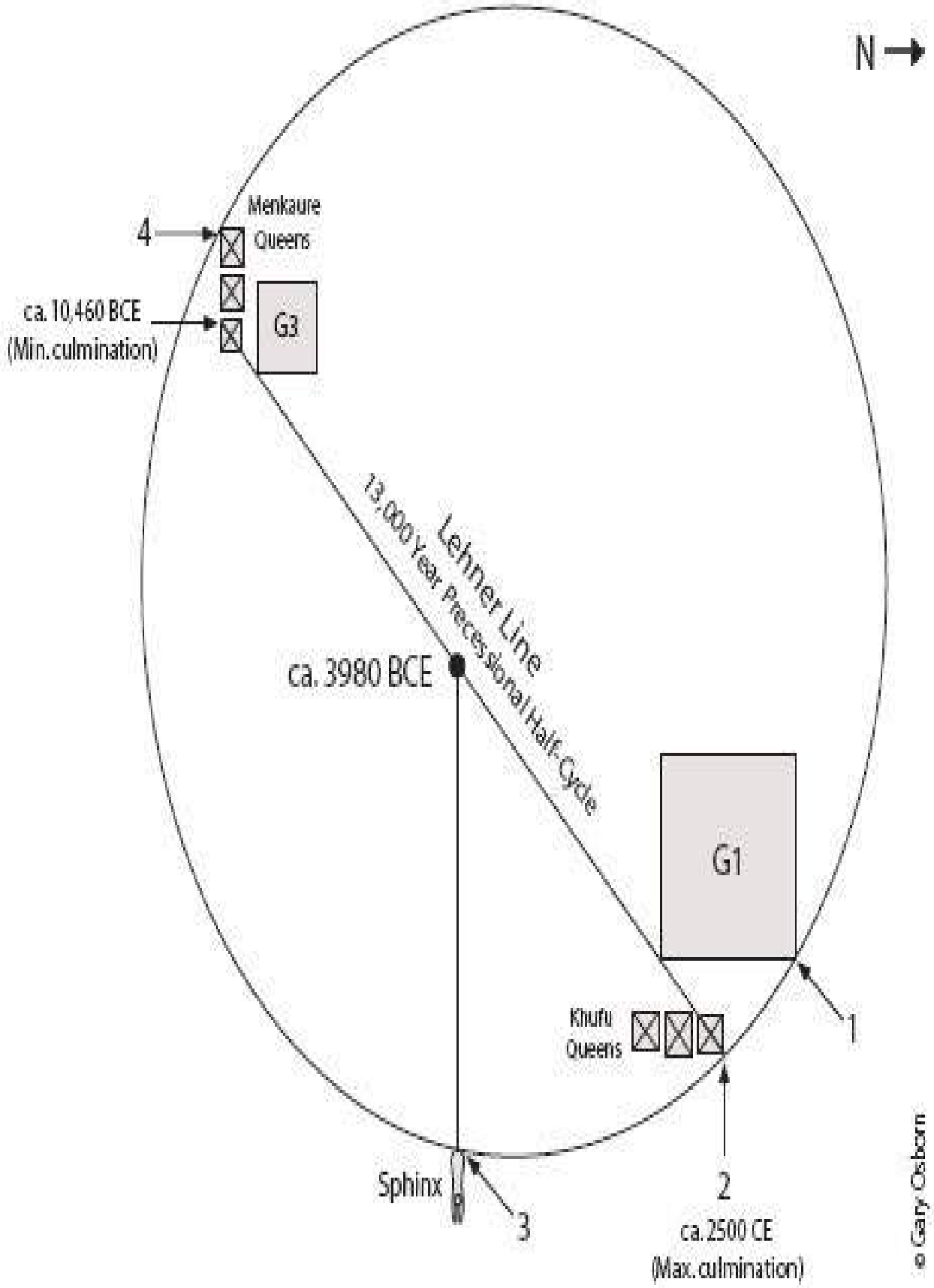
N
Menkaure
Queens
4
ca. 10,460 BCE
(Min. culmination)
G3
13,000 Year Precessional Half-Cycle
Lehner Line
ca. 3980 BCE
G1
Khufu
Queens
1
Sphinx
3
2
ca. 2500 CE
(Max. culmination)
© Gary Osborn

Figure 3.10b. The Sphinx is aligned to the midpoint on the Giza-Orion precession time line

It stands to reason, then, that as this is the midpoint of a line that we know represents a duration of around 12,960 years (from minimum to maximum culmination), the midpoint would then represent half that duration, giving us 6,480 years, which, when we subtract from the time line's starting point of ca. 10,460 BCE, presents to us the year ca. 3980 BCE.

So why, we ask, have the ancient designers aligned the Sphinx to this particular date on this time line? What is its significance? As we continue our investigation, we will uncover the quite remarkable answer to these questions.

We consider this arrangement of the structures we find at Giza to be too deliberate and too precise to be the result of random chance. All the pieces one would need to make a long-term, precession clock are there—and it still works! This grand astronomical clock or calendar—this Giza Clock of Ages—seems to serve a very specific and quite crucial purpose, which will be discussed in greater detail later in this book.

For the moment, however, what seems abundantly clear from our investigation is that the pyramids at Giza and the Sphinx form a very cohesive, integrated design based on various aspects of the Belt stars of the Orion constellation. This design seems to incorporate the two culminations of the Belt stars and a clever use of the asterism to generate the three bases of the main pyramids as well as presenting a time line or linear clock/calendar. And if our hypothesis here concerning this design is correct, then what we are witnessing again are the fingerprints of a highly sophisticated civilization, a hidden college that seems to have possessed advanced scientific knowledge (i.e., the precessional culminations of the Belt stars) that is far in excess of that generally attributed to

the ancient Egyptians of the Fourth Dynasty, lost knowledge from a forgotten chapter in the history of ancient Egypt.

But to what end was this grand design created? Why did the ancient designers and builders expend so much blood, sweat, and tears to create this great astronomical design, indicating—through the placement of the two sets of so-called Queens' Pyramids—the two culminations, the turning points in the Orion precessional cycle? Why are the ancient designers indicating this 13,000-year half-cycle of time in a series of monuments that could easily have been built to survive such a lengthy period—and more? And why have they positioned the Sphinx precisely to the midpoint of this linear time line at ca. 3980 BCE?

Perhaps the words of the ancient Egyptian astronomer-priest Senty, son of Pen-Sobek, might provide us with a clue.

I have been designated among the chiefs of men, the guides of the country chosen by the king. One will not find anyone more favored than I telling the hour conforms to the desire of the god so that he may give order to erect constructions announcing to man his future, telling him about his youth and his death; telling the years, the months, the days, and the hours, the course over every star by observation of its path.[2]

Here we have an ancient Egyptian astronomer-priest (albeit from the Late Period, though undoubtedly following a very ancient tradition) informing us that structures were erected that used the motion of the stars to tell humankind its future. Is it perhaps significant that the minimum culmination (ca. 10,500 BCE) of the Orion's Belt stars—indicated in the astronomical clock by the so-called Queens' Pyramids of G3—saw the beginning of the end of the last ice age, with Earth's seas rising rapidly as the great ice sheets over Europe and North America went into rapid meltdown, resulting in climate changes on a global scale with all manner of animal and plant species becoming extinct at that time? Is it perhaps significant also (as we shall see later) that the mid-culmination date ca. 3980

BCE was a time beset with similar dramatic Earth changes?

What event could have occurred on Earth to bring about such dire global consequences? And is there perhaps a message encoded into these structures by the builders to be uncovered by civilizations such as our own that is related to these catastrophic events of our past?

As we continue our investigation into the structures at Giza, we will discover that there may indeed be a message being presented to us in plain sight via the structures at Giza—a message, it would seem, from past events that we can ill afford to ignore.

Chapter 3 Summary

Khufu’s Great Pyramid was not sited on the central high ground of the Giza plateau and required a massive artificial causeway to be constructed deep into the Nile valley, when a natural causeway from the Nile already existed up to the central high ground of the plateau. This peculiar action suggests the placement of Khufu’s pyramid in the northeast of the plateau may have been to accommodate the logistics of future building elsewhere on the plateau—in other words, Khufu’s action may have been to accommodate a grand unified plan.

The geology of the Giza plateau—as shown by geologist Colin Reader—indicates that Khufu quarried blocks from either side of what would later become Rachaf ’s causeway, again indicating that Khufu may have been aware of a unified plan for the wider Giza plateau.

The Belt asterism of the Orion constellation can produce—in a simple and systematic manner—three bases whose dimensions proportionally match the bases of the three main Giza pyramids. This fact is highly suggestive that the structures at Giza conform to a predefined, unified, homogeneous plan and, as such, contradicts the conventional theory that the giant pyramids, including Giza, were constructed for the purposes of entombment.

The two sets of so-called Queens’ Pyramids at Giza indicate the two culminations (maximum ca. 2500 CE and minimum ca. 10,500 BCE) of the Belt stars of the Orion constellation. This may explain why the pyramid associated with Rachaf has no queens’ pyramids, since there are only two culminations.

The Lehner line connects the two sets of culmination markers (the so-called Queens' Pyramids), thereby representing a precessional time line (a linear clock/calendar) of around 13,000 years between the two culmination markers.

The Great Sphinx is precisely aligned to the midpoint of the time line, which, in the present precessional cycle, presents to us a time marker or date stamp of ca. 3980 BCE. This date corresponds with a highly significant period in ancient Egyptian history.

We are confronted with a civilization where it seems sophisticated knowledge of the motions of the stars—precession—was understood. This is knowledge far in excess of that generally attributed to the ancient Egyptians of the dynastic period and may indicate a more sophisticated hand in the design and construction of the giant pyramids from an earlier time in ancient Egypt.

4

LOST TIME OF THE GODS

In the previous chapters of this book, we revealed that the conventional view of the pyramids as tombs (with particular regard to the earliest giant pyramids) is devoid of any conclusive evidence and that the threadbare evidence cited in support of this opinion often raises more questions than it answers.

As already stated, while we accept that the tomb theory with regard to later Egyptian pyramids (from the Middle Kingdom period) may indeed have some merit, we take the view that the earliest giant pyramids of Saqqara, Meidum, Dahshur, and Giza are an exception, that these structures may originally have been conceived and built for an entirely different purpose (although it remains possible that these early pyramids may well have been appropriated as tombs with intrusive burials of the kings of later dynasties), and that all these giant pyramids may in fact predate the Old Kingdom period to which they are traditionally attributed.

We further discovered that the structures at Giza can be shown to conform to a very rigid, cohesive grand plan, whereby the layout and also the relative dimensions of the main pyramids as well as the positioning of the two sets of Queens' Pyramids can easily be associated with particular elements of the Belt stars of the Orion constellation. Indeed, that the structures at Giza can be shown to conform to a unified design is itself highly indicative of a purpose for these structures that goes far beyond that of mere tombs.

Of course, the question that now arises is. If not built by the Third or Fourth Dynasty Egyptians, then who built the giant pyramids, including Giza, and when were they built? And it goes without saying that if we cannot attribute these constructions at Giza (and their precursors) to the Old Kingdom period then it becomes evident that some earlier civilization in ancient Egypt—now seemingly lost to our history—must have been responsible for their design and construction.

But just how feasible is such an idea? As internationally renowned Egyptologist Dr. Mark Lehner once famously asked, “Show me a single potsherd” of the remains of this civilization.[1]

If one accepts the conventional chronology of ancient Egypt, then this is, of course, a very valid question. People, communities, societies, and civilizations do not live in a vacuum. Humans are very messy creatures. Wherever we go we leave much evidence of our existence in our wake, evidence that is eventually covered over by the sands of time to be dug out of the ground by the archaeologist’s hammer after we have long departed the scene. It stands to reason then that in digging up Giza we would find evidence of its habitation over the years, centuries, millennia, and beyond.

However, in almost 200 years of exploring, digging, and excavating at Giza and its surrounding area, it seems that only evidence of the known dynastic Egyptian civilization has ever been recovered. No “potsherds” from any civilization that predated the known period of the Old Kingdom have thus far been found. So, if Giza was designed and built at a much earlier time—as we and other alternative authors hypothesize—it seems that the entire plateau, every crevice, nook, and cranny therein, has been swept completely clean of any trace of the existence of a former civilization. (Incidentally, it is worth noting here that the ancient Egyptian Building Texts in the Temple of Horus at Edfu tell us that the ancient Egyptians themselves claim that their civilization is tens of thousands of years older than conventional Egyptology presently accepts.)

On the surface, then, the apparent lack of evidence of a civilization having existed long before the Old Kingdom period would seem to present a substantial obstacle to the notion of a former lost civilization having constructed anything on the Giza site—as is generally believed by many alternative researchers and writers.

It would be very easy for us here to casually rebut Dr. Lehner's comment with that of another renowned scientist, Dr. Carl Sagan, who famously said, "Absence of evidence is not evidence of absence." We feel, however, that it is incumbent upon us that we do actually attempt to address what is perceived to be a fatal flaw in the former lost civilization hypothesis—the apparent lack of potsherds and other artifacts that such a civilization would undoubtedly have left behind for us to uncover.

So where is the evidence of this former civilization, and how do we find it? The truth of the matter is that, in our opinion, the evidence of this lost civilization stands right before our very eyes; all that is required of us is to consider it with a slightly different perspective.

Out of Time and Place

As briefly mentioned in the previous chapter, the key pieces of evidence that compel Egyptologists to place the construction of Giza and the other giant pyramids into the timeframe of ca. 2630 to 2450 BCE are largely the result of the various surviving King Lists, Manetho's Aegyptiaca, and carbon-dating evidence, as well as the inscription of "Khufu" found inside a sealed chamber of the Great Pyramid and that of "Khaf" (Rachaf) found on the Dream Stele that stands between the paws of the Sphinx.

As we have shown, however, it is far from clear or certain that the hieroglyphic inscriptions of the royal names found inside the Great Pyramid (Khufu and Khnum-Khuf) actually belong to the period to which Egyptologists traditionally attribute them. We have also shown how the Inventory Stele tells us that the Sphinx existed in Khufu's time; therefore, Rachaf—to whom the construction of the Sphinx is traditionally attributed—could not possibly have carved this monument, since ancient Egyptian kings were kings for life.

We also presented evidence from geologist Colin Reader that shows that the causeway up to the second pyramid (G2) also existed while Khufu was supposedly quarrying blocks for the Great Pyramid.

The extensive erosion evidence of the Sphinx and the Valley Temple presented in numerous books by Dr. Robert Schoch and John Anthony West and by Graham Hancock and Robert Bauval also suggests that these structures at Giza may be far older than traditionally accepted.

In addition to this, there are ancient artifacts that are known to predate the

dynastic period of ancient Egypt and yet seem to depict the Giza pyramids. An ostrich eggshell, for example, from the Nubia Museum (figure 4.1), seems to present (among other things) a crude map of Lower Egypt depicting the three main pyramids of Giza (top left) and below these to the south, a feature that—while perhaps roughly resembling an ostrich—could also reasonably be viewed as representing the long neck of the Nile Valley opening out into an area known as the Fayoum Depression and continuing down once more into the Nile Valley.[2] This eggshell is dated to the Naqada I period, ca. 4400 to 3000 BCE, and if this does represent an early map of the Nile Valley and the Giza pyramids, it is almost like having a dated photograph of the Giza pyramids showing that they existed up to some 2,000 years before conventional opinion says they were supposedly built!

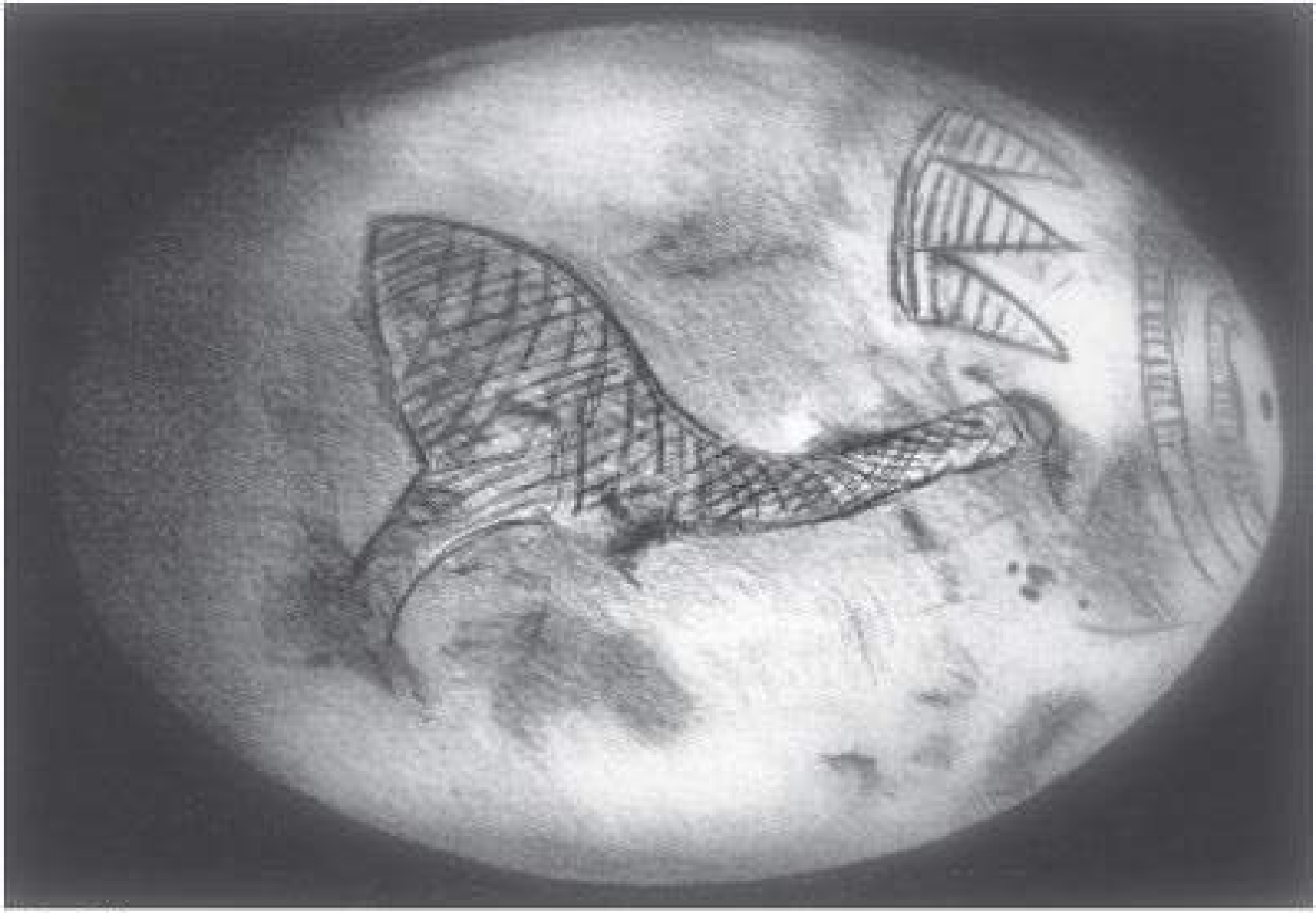

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Figure 4.1. Author's rendition of the eggshell seems to present a map of the Giza pyramids, the Nile Valley, and the Fayoum Depression.

The depiction in figure 4.1 of what seems to be the Giza pyramids should not be confused with other ancient predynastic artifacts that were thought by some commentators to depict pyramids, such as an agricultural scene from ancient Mesopotamia (figure 4.2).

The pyramid-shaped structure in the top right of the scene in figure 4.2 is categorically not, as some other authors have claimed, a representation of the Great Pyramid at Giza but is more likely to be a simple reed hut of the type typically used by farmers and fishermen of that period. Indeed, such structures continue to be used even to this very day by the descendents of the ancient Mesopotamians (figure 4.3).

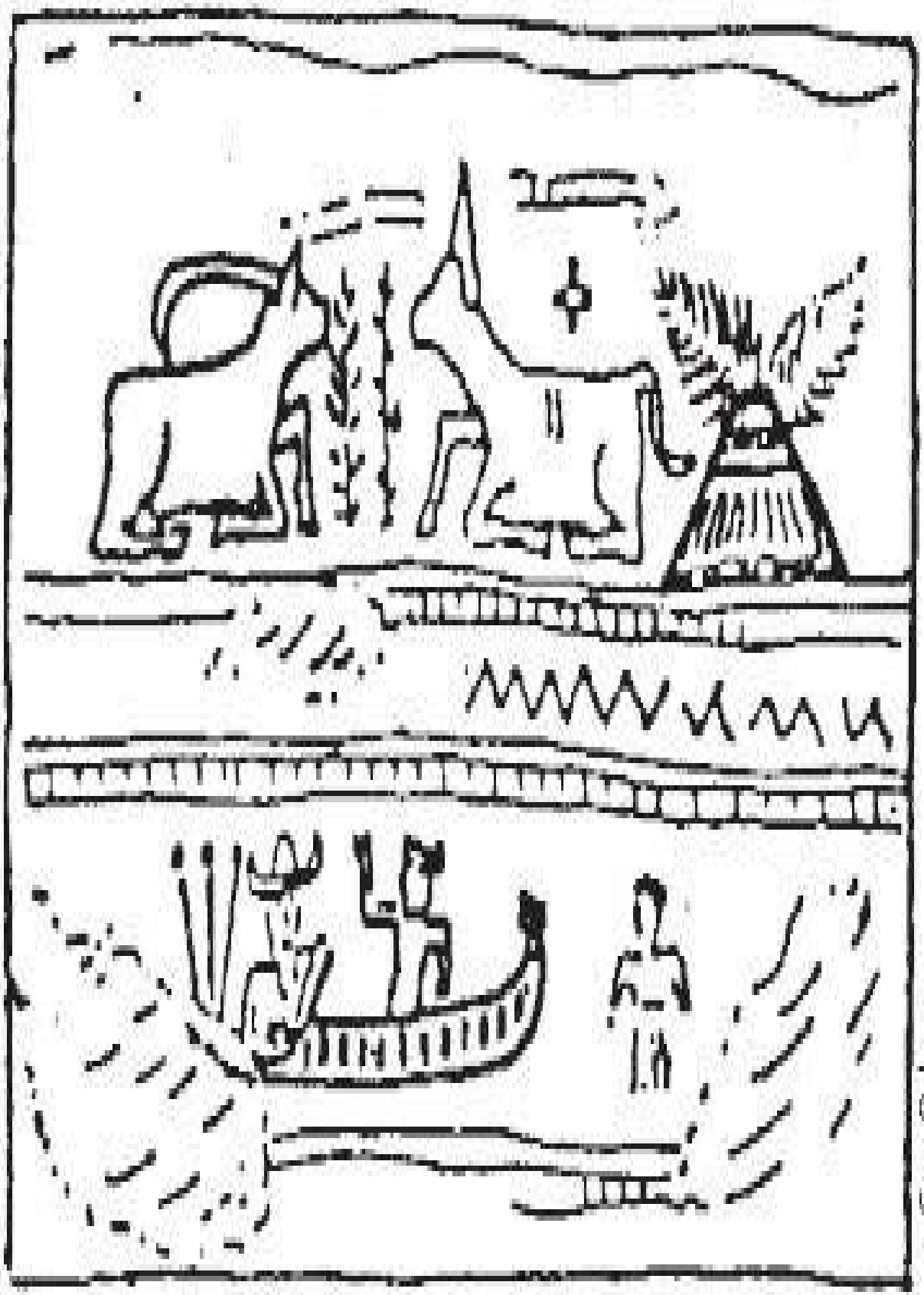

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Figure 4.2. Author's rendition of an agricultural scene from ancient Mesopotamia

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Figure 4.3. Author's rendition of an ancient type of Mesopotamian reed hut still in use[3]

What is immediately noticeable in the depictions of the Mesopotamian reed huts in figures 4.2 and 4.3 are the many vertical lines of the reeds, with only two or three horizontal lines. This is markedly different from the pyramid-shaped structures on the Nubian ostrich eggshell (figure 4.1), which have no vertical (reed) lines while presenting numerous horizontal lines. These horizontal lines are what one might expect to find in an early, crude drawing of the pyramids—horizontal layers of casing stones, stacked one on top of the other.

Interesting also on the eggshell image is the noticeable reduction in height of the pyramid shape to the left compared with the other two structures and also that the Nile Valley is depicted to the right. This would certainly be the case if one's point of observation was from the southeast of the Giza plateau (figure 4.4).

Other predynastic artifacts depicting pyramids have also been found at Abydos, one of the earliest religious centers in ancient Egypt. Egyptologist David O'Connor of the University of Pennsylvania tells us, "The earliest evidence of the pyramid is in pictures on artifacts that predate the pharaohs."[4]

We have to ask, why would ancient peoples be drawing pictures of what appear to be the Giza pyramids onto artifacts thousands of years before the supposed pyramid-building age? Was this just the figment of some ancient imagination? Or might not the answer simply be that the Giza pyramids already existed at that much earlier date and presented the ancient artist of the ostrich egg (and other artifacts) with the inspiration for such a drawing?

Figure 4.4. Pyramids of Giza. Small pyramid (G3) to the left, Nile Valley to the right; photo by Scott Creighton

Even more peculiar and controversial is the dating of the Sphinx presented by geologists Vjacheslav I. Manichev and Alexander G. Parkhomenko in a paper presented to the International Conference of Geoarchaeology and Archaeomineralogy held in Sofia in October 2008.

It is the sea level during the Calabrian phase which is the closest to the present mark with the highest GES [Great Egyptian Sphinx] hollow at its level. High level of sea water also caused the Nile overflowing and created long-living water-bodies. As to time it corresponds to 800,000 years. . . .

Conclusion:

A comparison of the formation of wave-cut hollows on the sea coasts with erosion structures in the form of hollows observed on the surface of the Great Egyptian Sphinx permits a conclusion about the similarity of the formation mechanism. It is connected to water activity in large water bodies during the Sphinx submersion for a long period of time. Geological data from literary sources can suggest a possible Sphinx submersion in the Early Pleistocene, and its initial construction is believed to date from the time of most ancient history.[5]

A Sphinx that is almost a million years old! Such an extreme date truly beggars belief. For one thing, an age of almost a million years for the Sphinx would call into question the very fundamentals of human evolution and the antiquity of humankind as it is presently understood. At the time of this writing, the oldest known remains of anatomically modern humans—Homo sapiens sapiens—were

found at the Omo River in southwest Ethiopia and are around 195,000 years old.[6] How then is it possible for science to suggest a Sphinx that is some 800,000 years older than the first modern human? How can we make sense of this? Is it even remotely possible to make sense of such a glaring anomaly?

Perhaps we have to consider that our present understanding of the evolutionary process is fundamentally flawed and that there may be another model of our evolution—physically and culturally—that allows us to make sense of such seemingly contradictory data.

For the moment, however, what seems apparent is that, in the pyramids at Giza (and their precursors), we have very ancient monuments that—if the scientific and eyewitness evidence (via predynastic drawings) is to be believed—may well have existed long before the time frame into which Egyptologists and other scholars have shoehorned these structures. As mentioned briefly, the only evidence orthodox opinion can present in support of its proposed chronology derives from various incomplete and contradictory king lists and Manetho's fragmentary Aegyptiaca, bolstered with some questionable C14 carbon dating. But exactly how definitive are these various dating methods? How securely do they allow us to lock the giant pyramids into the orthodox time-frame of ca. 2630 to 2450 BCE?

Let us now take a look.

Dating with the King Lists

Ancient Egypt did not have a continuous, incremental calendar year count as we have in our modern calendrical chronology. The chronology and/or calendar of the ancient Egyptians was based on the start of a particular king's reign and the length of that reign—regnal years. When the king died, the year count would effectively be reset to year one of the reign of the new succeeding king, and so on. A chronology of ancient Egyptian civilization can be worked out by knowing how many kings existed and for how long they each reigned over the kingdom.

It is generally agreed among scholars that the succession of ancient Egyptian rulers stretching back into great antiquity has been pretty much worked out. However, sorting out the various fragmentary pieces of evidence that have come down to us to enable scholars to create this succession list has not been easy. In their book Giza: The Truth, Ian Lawton and Chris Ogilvie-Herald write:

The prime source of information for this chronological framework [for ancient Egyptian history] is the "King List" prepared by the Egyptian priest Manetho in his Aegyptiaca, written in the third century BC. Unfortunately, the original text no longer survives, and only edited versions of it from the first to third centuries AD are available for scrutiny. Other lists exist that add to the picture, including the Turin Canon, a New Kingdom papyrus prepared in the time of Ramesses II, the king lists found in tombs at Abydos, Saqqara and Karnak, and the Palermo Stone.[7]

As stated, most of the King Lists are incomplete. Furthermore, the translation of Manetho's chronicle from one language into another (Koine Greek into Egyptian, and vice versa) has also caused numerous problems, as has the use in some lists of the king's religious name while in others we apparently find the use of the king's throne name (ancient Egyptian kings had several names and/or

titles). The length of reign given in the different lists is also often contradictory. And then there is the massaging of information—propaganda—for political or religious expediency that undoubtedly took place, which would also have had an impact on the accuracy of the list and, thereby, its overall chronological accuracy.

In short, we cannot be anywhere near certain that the record of the ancient Egyptian (mortal) kings that has come down to us from antiquity is a true and complete picture; there are known gaps, and we simply do not know how much of the list is missing from those gaps.

While we have no particular axe to grind with this chronological framework offered by the succession of kings from the known king lists, we do feel that it must be recognized that there is a high probability that this list is by no means fully accurate or, indeed, complete; much will have been lost. Indeed, it is well recognized in Egyptology that during several periods of deep unrest in ancient Egyptian history there were numerous overlapping dynasties and also numerous kings that are now lost to the pages of history, having been simply forgotten or deliberately erased.

For example, the Ipuwer Papyrus from the First Intermediate Period, which followed on from the sudden and unexpected collapse of the Old Kingdom, tells of “seventy kings in seventy days.” This would seem to be an allegorical term indicating the general upheaval of the time and the probability that there were many kings that came and went in rapid succession, few of which seem to be remembered by the history books.

It is worth noting here as well that in ancient times a “day” could be interpreted as a person’s life or even an entire generation. It is also well recognized that this chaotic period was the first great Dark Age in ancient Egyptian history, of which, compared with other periods of dynastic Egypt, relatively little is known since very little culturally was achieved during this time; no great pyramids, temples,

or other monuments were built. It is as if ancient Egypt simply vanished, and we just do not know how much history was lost or went unrecorded during this Dark Age. Figure 4.5 shows the ancient Egyptian King Lists from dynasties 1 through 8 according to ancient historians Africanus and Eusebius (using Manetho as their source).

	Africanus		Eusebius	
Dynasty	Kings Claimed	Kings Listed	Kings Claimed	Kings Listed
1	8	8	8	8
2	9	9	9	9 (3 missing)
3	9	9	8	8 (6 missing)
4	8	8	17	1
5	8	9	31	2 (from Dyn 6)
6	6	6	?	1
7	70	0	5	0
8	27	0	5	0

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Figure 4.5. Egyptian King Lists (dynasties 1–8) according to Africanus and Eusebius, based on Manetho's Aegyptiaca

We can see that between dynasties 4 and 8, we have quite massive discrepancies in the number of kings claimed or listed for each dynasty. In the Abydos King List, dynasties 4 to 8 include around 28 kings. If we combine the figures of Africanus and Eusebius in figure 4.5, we potentially have the kings of dynasties 4 to 8 totaling around 151 kings. That is—potentially—123 missing kings from the Old Kingdom/First Intermediate Period, and if we take each king's reign—for the sake of discussion—as averaging 15 years, then this amounts to potentially 1,845 years of lost history from this period alone. It could be much less, or it could be much more.

Accepting for a moment that there are indeed this many kings missing (123) from the Old Kingdom/First Intermediate Period, the effect of this in terms of placing the Old Kingdom pyramids into an absolute time frame would be quite dramatic. Think about it this way: if Egyptologists suddenly found records of all these missing kings and had to insert them into the period between the Old Kingdom and the First Intermediate Period, this would have the effect of lengthening the overall chronology and pushing the absolute time frame of the Old Kingdom period back in time by hundreds, perhaps even thousands of years. In essence, the time frame or chronology scholars have developed for this period of ancient Egyptian history may in fact be a much truncated version of the true time line, whereby two discrete periods (the Golden Age period and the Old Kingdom period) have effectively been bolted together by virtue of much of the intervening period having been lost.

In short, then, we consider it fair to say that the structures at Giza (and of the wider Old Kingdom period) simply cannot be reliably dated (in absolute terms) using a chronology that is determined largely by the use of incomplete king lists or the fragmented and edited Manetho's Aegyptiaca. What is actually needed is a verifiable date marker in absolute time, perhaps a known astronomical event of

some kind that we know occurred in the past, the recording of which we can then use to synchronize with our modern calendar and thus, hopefully, anchor an absolute date to a specific Egyptian king—a dateline in the sand, as it were—and from this, it might be possible to further slot the successive dynasties into an absolute time line.

Astronomical Dating

The most important star to the ancient Egyptians was the Dog Star, Sirius, known to them as Sophis or Sopdet. The annual heliacal rising (at dawn, slightly ahead of the sun) of this star heralded the annual flood of the Nile and the start of the ancient Egyptian year. However, because the ancient Egyptians observed an annual calendar of only 365 days (as opposed to our modern calendar of 365.2425 days), this meant that over time the date of this astronomical event would drift through the calendar. In four years the heliacal rising of Sirius would be observed not on July 20 but on July 21 (one-quarter day each year for four years equals one extra full day).

Over longer periods, the Egyptians would undoubtedly have observed that their months and seasons were losing synchronicity with the Nile inundation; for example, the inundation, which normally took place in the month of July (the season of inundation), would now take place in the calendar month of December (the season of emergence or the sowing season). This slow loss in the synchronization of the Egyptian annual calendar with the Nile inundation was the result of this unaccounted quarter day. For the annual inundation season and the actual inundation event to synchronize themselves again would take some 1,505 years (365 ÷ 0.2425 = 1,505).[8] This great period is known as the Sothic Cycle.

It naturally stands to reason that the resynchronization of the actual Nile flood with the calendar flood season (intriguingly also known as the season of Akhet) would be seen as a momentous occasion—the end of one long Sothic Cycle and the beginning of a new one. As such, if the Egyptian astronomer-priests recorded this quite unique astronomical moment, it might then be possible to astronomically backdate this event and thereby to know the absolute date for the reigning king of this time. And this Sothic Cycle is precisely the kind of astronomical time marker that Egyptologists have been seeking in ancient

Egyptian texts in order to calibrate the various king lists with absolute time.

Thus far Egyptologists and other scholars believe they have identified three heliacal risings of Sirius in the ancient Egyptian texts. The oldest and most controversial of these was discovered by Eduard Meyer, engraved onto an ivory tablet believed to be from the reign of the First Dynasty King Djer. The significance of this particular observation is that it would appear to mark the end of one complete Sothic Cycle and the beginning of a new cycle.

However, the date presented on the ivory tablet seems to indicate a Sothic Cycle start date of ca. 4400 BCE. Because of this apparently very early date (a time when dynastic Egypt is not even supposed to have existed let alone have had King Djer as its ruler), Egyptologists felt compelled to shift this particular observation forward one complete Sothic Cycle to ca. 2895 BCE. In other words, rather than simply acknowledge and accept that their perceived chronology might actually be in error by 1,505 years and shift the kings and dynasties back in absolute time accordingly, they simply took the view that the date of this particular heliacal rising of Sirius that Meyer presented must be wrong and that it must belong to a later period, at the next full Sothic cycle ca. 2895 BCE, as opposed to ca. 4400 BCE, a difference of 1,505 years. However, as we will see later, this original date of ca. 4400 BCE may not be as extreme as Egyptologists believe, and Eduard Meyer's view of the ca. 4400 BCE date for this observation may, in fact, be correct.

The Temple of Karnak presents yet another dating anomaly whereby, according to former Australian astronomer George F. Dodwell, the alignment of the temple at its founding ca. 2050 BCE conflicts with present back-projected astronomical findings. Each year at the summer solstice, the setting sun would be at its farthest extent around the western horizon for sunlight to shine down a long passageway into the inner sanctuary (Hat Benben, or Holy of Holies), where, once per year, both the pharaoh and a statue of Amun-Ra would be illuminated in a blaze of radiant light—the manifestation of Amun-Ra ceremony.[9] However, back-projections of the sun's position to the supposed period of this ceremony

ca. 2050 BCE show that the sun could not have shone down this passageway and into the inner sanctum at the time of the temple's historical use. In fact, this ceremony, according to Dodwell, would have to have taken place around 1,600 years earlier for the sun's rays to shine down this corridor and penetrate the inner sanctum on the summer solstice. We will look further into Dodwell's findings later in this book.

Yet we do know, however, from ancient Egyptian writings, that this ceremony did take place, so we have to conclude that something seems to be wrong with the orthodox chronology of ancient Egypt and—as we shall see later—the chronologies of other ancient sites around the world.

C14 Radiocarbon Dating

The advent of radiocarbon dating has allowed Egyptology (and other sciences) to test organic materials and to place those tested materials within an absolute time frame. In 1995 such tests were undertaken on materials taken from in and around Giza, including several samples from the Giza pyramids. The mortar that binds the blocks of the pyramids was created by heating a gypsum mix. During this cooking process, charcoal from the wood fires would find its way into the gypsum mix. Fragments of these charcoal remains were extracted from the mortar between the pyramid blocks and radiocarbon dated.

Two radiocarbon studies of Giza were completed in 1984 (64 samples tested)[10] and 1995 (353 samples tested).[11] Both studies showed that the Giza pyramids should be slotted into the period ca. 2900 BCE. This is to say that the average calibrated radiocarbon dating from both surveys shows that the Giza pyramids existed almost 400 years (averaged) or so before the second king of the Fourth Dynasty supposedly initiated their construction. Indeed, one of the early samples tested presented what was regarded as an erroneous date of 1,200 years before the supposed time of construction.[12]

Egyptologists, however, will cite the argument that a particular piece of wood might have been lying around unused for centuries before eventually finding its way onto a gypsum fire. In the relatively dry climate of Egypt, wood can keep for a very long time. Of course, one has to question how it was that the ancient Egyptians managed to select the right pieces of this old wood in the right order to ensure the correct radiocarbon sequence of pyramid building was presented, a radiocarbon sequence that, incidentally, the Egyptologists are quite happy to accept, although, curiously, from the test samples taken from Giza it seems that G2—the second of the main pyramids constructed at Giza—actually dates earlier than the Great Pyramid of Khufu, which was supposedly built first.

It seems to us, then, that the 400-year disparity between the Egyptologists' accepted chronology and the C14 dating chronology—such as it is—may in fact be real and that the structures at Giza do not, in fact, belong to the time frame of ca. 2500 BCE; ergo, they cannot belong to the kings of that period, Raufu, Rachaf, and Menkaure, who may have merely adopted the Giza pyramids with Radjedef alone opting to build his own.

But once again, regardless of the fact that hard scientific evidence contradicts their chronology, Egyptologists remain steadfast in their hidebound reluctance to shift the dating of these structures back in time, insisting—for no other reason than what seems to be a dogmatic belief—that the Giza pyramids be locked to the period ca. 2500 BCE, with the Fourth Dynasty pharaohs as their builders. One might reasonably ask, where is science to be found in dogma?

Of course, it stands to reason that if the Giza pyramids existed long before the time of the Fourth Dynasty pharaohs—as the radiocarbon dating evidence (and other evidence) seems to suggest—then it would seem that the pharaohs of the period ca. 2500 BCE may indeed have appropriated these structures as their eternal tombs with intrusive burials, as we have proposed earlier. And if it were the case that the structures were considerably older, we have to also ask in what state of dilapidation might the Giza structures have been when they were eventually appropriated by Raufu and his successors in the Fourth Dynasty? If the Giza structures were in a ruinous state, Raufu and sons would surely have wished to have them rebuilt or renovated so they befitted the purpose of an eternal tomb.

And, of course, if such repairs and/or additions were indeed to have taken place to the Giza pyramids ca. 2500 BCE, this later operation, with its gypsum-burning fires, would inevitably have had the effect of masking the true age of the original construction. Of course, if this were to have been the case, then further radiocarbon dating should be done, taking samples from deep inside the pyramids.

A Flawed Science?

While radiocarbon dating may have its place as a tool for determining the date of organic matter, it is nevertheless important for the reader to understand that this dating technique is not infallible, nor is it without its limitations (and its detractors). Indeed, the creator of this dating technique, W. F. Libby, well understood this and was at pains to make its limitations known. The following two essential conditions have to be met for radiocarbon dating to be useful and are explained here by Immanuel Velikovsky.

(1) The correctness of the method depends greatly on the condition that in the last 40 or 50 thousand years the quantity of water in the hydrosphere (and carbon diluted in it) has not substantially changed.[13]

(2) The method depends also on the condition that during the same period of time the influx of cosmic rays or energy particles coming from the stars and the sun has not suffered substantial variations.[14]

It is a matter of scientific fact that as a result of the rapid meltdown of the great North American and European ice sheets at the end of the last ice age around 12,000 years ago, sea levels around the globe increased by around 300 feet. In short, there is more water in the hydrosphere now than at the end of the last ice age. Furthermore, it is also a matter of scientific fact that the amount of cosmic ray particles reaching Earth constantly fluctuates over time; it has never been consistent. In this regard, Immanuel Velikovsky further writes:

Bursts of cosmic rays and of electrical discharges on an interplanetary scale would make organic-life surviving the catastrophes much richer in radiocarbon

and therefore, when carbon dated, that organic matter would appear much closer to our time than actually true.[15]

Dendrochronology

In an attempt to overcome this not-insignificant problem with radiocarbon dating, a calibration technique was developed by dendrochronologists using tree-ring data mainly from the white bristlecone pine, the longest-living tree at around 2,000 years. But even this calibration method to C14 dating is not without its own problems, as the following quotes from a number of scientists and scientific journals indicate.

From the Botanical Review:

Three or four rings formed in one year is not uncommon, especially if the tree grows on a slope, with the ground several times in a year turning wet and dry because of rapid outflow of water.[16]

So, if a tree can form more than one tree ring in any given year, it is easy to see how a tree might appear older than it actually is, since it is generally assumed that a tree grows one ring per year. In addition to this problem there is the problem of multiple dates a tree can present from its pattern of rings. In 1986, David Yamaguchi of the U.S. Geological Survey presented a research report in which he wrote:

These results suggest that 113 of the 830 potential bark dates examined are likely matching positions. Clearly, 113 is too large a number of likely bark dates because less than one likely date should have arisen by chance in a time interval of this length, and only one can be the correct date. Several additional features are evident in these results. The future bark dates (A.D. 2078–2195) identified by this analysis are obviously in error. Further, the 23 dates that occur during the

A.D. 1668–1771 interval are consistent with the stratigraphic evidence for an earlier date of death for [the] tree.[17]

Of the results presented in Yamaguchi's 1986 research paper, Dr. Sean Pitman writes:

Amazingly, using such t-value analysis, Yamaguchi found 113 different matches having a confidence level of greater than 99.9%. For example, Yamaguchi demonstrated that his log could cross-match with other tree-ring sequences to give t-values of around 5 at CE 1504 (for the low end of the ring age), 7 at CE 1647 and 4.5 at CE 1763. Six of these matches were non-overlapping. That means that this particular piece of wood could be dated to be any one of those six vastly different ages to within a 99.9% degree of confidence.[18]

With regard to dating items from the ancient Near East such as carbon from the mortar of the Great Pyramid and other ancient artifacts from this region, C14 dates are calibrated to the dendrochronology of Anatolian tree rings. However, as Douglas Keenan indicates, this may not, in fact, be a sound practice.

The result is a system in which investigators can claim any plausible results and yet are accountable to no one. . . . The central conclusion is clear: Anatolian tree-ring studies are very untrustworthy and the problems with the work should be plain to anyone who has familiarity with the field. This is a serious matter. . . . In almost all branches of science there is a check on the validity of published work: other researchers can, and often will, independently seek to replicate the research. . . . This check much helps to insure the integrity of the system. Tree-ring studies, though, do not have this check, because the wood that forms the basis of a tree-ring study is irreplaceable: no other researchers can gather that wood.[19]

So it seems that the science of dendrochronology, far from being a robust and reliable method of calibrating the errors produced by C14 dating, has its own serious problems. These problems are probably best summed up by tree physiologist Dr. Rod Savidge, who writes:

As a tree physiologist who has devoted his career to understanding how trees make wood, I have made sufficient observations on tree rings and cambial growth to know that dendrochronology is not at all an exact science. Indeed, its activities include subjective interpretations of what does and what does not constitute an annual ring, statistical manipulation of data to fulfill subjective expectations, and discarding of perfectly good data sets when they contradict other data sets that have already been accepted. Such massaging of data cannot by any stretch of the imagination be considered science; it merely demonstrates a total lack of rigor attending so-called dendrochronology research. . . . It would be a major step forward if dendrochronology could embrace the scientific method.[20]

In effect, then, we find that both of Libby's conditions for effective radiocarbon dating of organic matter have been violated and, indeed, that the very method developed to smooth out or to calibrate the radiocarbon technique, dendrochronology, is itself beset with problems. One must surely ask, in light of these quite fundamental violations and other issues, how radiocarbon dating can be relied on at all.

In the words of archaeologist David Down:

I've used carbon-14 dating . . . frankly, among archaeologists, carbon dating is a big joke. They send samples to the laboratories to be dated. If it comes back and agrees with the dates they've already decided from the style of pottery, they will say, "Carbon-14 dating of this sample confirms our conclusions." But if it doesn't agree, they just think the laboratory has got it wrong, and that's the end of it. It's only a showcase. Archaeologists never (let me emphasize this) NEVER

date their finds by carbon-14. They only quote it [C14 date] if it agrees with their conclusions.[21]

Down's comments on the use of C14 dating within archaeology are supported by the view of archaeologists Peter James and colleagues, who write:

When a radiocarbon date agrees with the expectations of the excavator it appears in the main text of the site report; if it is slightly discrepant it is relegated to a footnote; if it seriously conflicts it is left out altogether. . . . As the senior radiocarbon scientist Professor Ingrid Olsson frankly concluded at the Gothenburg conference: "Honestly, I would say that I feel that most of the dates from the actual Bronze Age are dubious. The manner in which they have been made . . . forces me to be critical."[22]

But just how deep rooted are the problems with radiocarbon dating? Scientist Robert Lee informs us:

The troubles of the radiocarbon dating method are undeniably deep and serious. Despite 35 years of technical refinement and better understanding, the underlying assumptions have been strongly challenged and warnings are out that radiocarbon may soon find itself in a crisis situation. Continuing use of the method depends on a "fix-it-as-we-go" approach, allowing for contamination here, fractionation here, and calibration whenever possible. It should be no surprise, then, that fully half of the dates are rejected. The wonder is, surely, that the remaining half come to be accepted. . . . No matter how "useful" it is, though, the radiocarbon method is still not capable of yielding accurate and reliable results. There are gross discrepancies, the chronology is uneven and relative, and the accepted dates are actually selected dates.[23]

The underlying and fundamental problem with radiocarbon dating is rather

succinctly expressed in the following passage from Walt Brown:

Carbon dating is controversial for a couple of reasons. First of all, it's predicated upon a set of questionable assumptions. We have to assume, for example, that the rate of decay (that is, a 5,730 year half-life) has remained constant throughout the unobservable past. However, there is strong evidence which suggests that radioactive decay may have been greatly accelerated in the unobservable past. We must also assume that the ratio of C-12 to C-14 in the atmosphere has remained constant throughout the unobservable past (so we can know what the ratio was at the time of the specimen's death). And yet we know that "radiocarbon is forming 28–37% faster than it is decaying," which means it hasn't yet reached equilibrium, which means the ratio is higher today than it was in the unobservable past. We also know that the ratio decreased during the industrial revolution due to the dramatic increase of CO2 produced by factories. This man-made fluctuation wasn't a natural occurrence, but it demonstrates the fact that fluctuation is possible and that a period of natural upheaval upon the earth could greatly affect the ratio. Volcanoes spew out CO2 which could just as effectively decrease the ratio. Specimens which lived and died during a period of intense volcanism would appear older than they really are if they were dated using this technique. The ratio can further be affected by C-14 production rates in the atmosphere, which in turn is affected by the amount of cosmic rays penetrating the earth's atmosphere. The amount of cosmic rays penetrating the earth's atmosphere is itself affected by things like the earth's magnetic field which deflects cosmic rays. Precise measurements taken over the last 140 years have shown a steady decay in the strength of the earth's magnetic field. This means there's been a steady increase in radiocarbon production (which would increase the ratio). And finally, this dating scheme is controversial because the dates derived are often wildly inconsistent. For example, "One part of Dima [a famous baby mammoth discovered in 1977] was 40,000 RCY [radiocarbon years], another was 26,000 RCY, and 'wood found immediately around the carcass' was 9,000–10,000 RCY."[24]

Again, we are inclined to ask, why should the archaeologist or other scientist be allowed to dismiss contradictory scientific data on the basis that they know better? How do they actually know the correct C14 data to cherry-pick that date

from all the other dates C14 analysis might present? Or is it simply the case that only the data (dates) that support their preconceived view is deemed appropriate and correct, while anything that contradicts that view must automatically be wrong or imaginary? Can this even remotely be considered as sound, unbiased science?

And with regard to the error margin C14 dating apparently presents (currently believed to be around 100 years), we think the final word on this issue should go to Dr. Zahi Hawass, the world's foremost Egyptologist.

Not even in five thousand years could carbon dating help archaeology. We can use other kinds of methods like geoarchaeology, which is very important, or DNA, or laser scanning, but carbon dating is useless. This science will never develop. In archaeology, we consider carbon dating results imaginary.[25]

One would have thought that given a scientific technique that claims to accurately and reliably date an artifact to within plus-or-minus 100 years, Dr. Hawass would have been welcoming such a science with open arms. In this regard, Dr. Hawass's remarks on this subject are quite revealing. We have to conclude that if one of the world's foremost Egyptologists has such strong reservations about the science of C14 dating and, in particular, issues with the claims regarding the reliability of C14 dating, then surely that should give us all pause for thought and perhaps even cause for concern.

Given the facts outlined above, it seems that neither written texts nor the sciences of radiocarbon dating, dendrochronology, or astronomy can be used to determine an absolute chronology of ancient Egyptian history that is foolproof and that will allow us to form a reliable, absolute time line. In short, there is nothing textually or scientifically that has been presented by orthodox Egyptology that will allow us to reliably place the early giant pyramids into an absolute date relative to our present time. It seems that the time frame of ca. 2550 to 2450 BCE for the construction of Giza is largely based on guesswork

that ignores the many holes and problems in the King Lists, Manetho's Aegyptiaca, geological data, astronomical data, and C14 dating.

The Real “Lost Civilization”

This may come as something of a surprise, but the orthodox view of ancient Egypt already recognizes that there exists something of a “lost civilization,” a lost chapter in ancient Egyptian history. It is a period in ancient Egypt for which there is some evidence, but about which—compared with other periods of this most ancient of civilizations—very little is actually known. As stated earlier in this chapter, it is a time often regarded as a dark period in ancient Egyptian history.

This period, with its “seventy kings in seventy days,” is categorized by orthodox scholars as the First Intermediate Period, and it is known to have followed the sudden (and somewhat inexplicable) collapse of the Old Kingdom supposedly around 2200 BCE, a period that is believed to have been brought about as the result of some unidentified natural disaster, with sudden and dramatic climate change often cited as the likeliest possibility. Indeed, this idea of sudden and dramatic climate change has been given a boost with the recent research by scientists from the University of St. Andrews who analyzed the lake bed of Lake Tana in Ethiopia (the source of the Blue Nile), revealing sediments that showed a drought so severe that it would have resulted in dire water shortages for the Old Kingdom of Egypt that would ultimately bring about its collapse. This collapse or dark period is believed by orthodox scholars to have lasted for 100 to 200 years.

As we have seen, however, it is quite impossible for Egyptologists to reliably slot the various dynasties into an absolute and accurate time line, since the only hard science that they rely on to provide their chronology—astronomical dating and radiocarbon dating—simply cannot reliably assist them in this endeavor. Neither of these sciences can present them with a reliable, absolute time line—certainly not one that Dr. Zahi Hawass seems confident enough to trust. And this is especially problematic given that the First Intermediate Period, which

followed the sudden collapse of the Old Kingdom, is less known and understood than the previous Old Kingdom period; we simply have no idea just how much history might have been lost during this dark period of upheaval.

The phrase “seventy kings in seventy days” could literally mean seventy days, or it might refer to seventy lifetimes or seventy entire generations, in which case we are talking of the possibility of many thousands of years of lost history—and especially so if there really are 123 kings (or even close to that number) missing from the lists of Africanus and Eusebius. It is here, in the period that followed the sudden collapse of Egypt ca. 2200 BCE, that we should perhaps be seeking the real “lost civilization.” And in finding the lost history of this relative Dark Age, we may then be able to finally piece together a clearer picture of ancient Egypt’s true chronology and place the giant pyramids into the period to which some evidence suggests they actually belong—sometime, it would seem, long before ca. 2500 BCE.

To present a simple analogy, imagine you have a piece of rope. At one end of the rope is the early Egyptian civilization with all its very large pyramids, while at the opposite end of the rope is the next great age of ancient Egyptian civilization, the Middle Kingdom period. The piece of rope between these two periods represents Egypt’s first Dark Age—the First Intermediate Period. Let us suppose this is a very lengthy period (perhaps spanning many thousands of years) and so represents a significant length of your rope.

Now imagine that you cut away 95 percent of this middle section of the rope—95 percent of the Dark Age period—cast it aside (representing the lost history of this period), and then simply tie the other two ends of the rope together again. Because you now have a much smaller middle section (only 5 percent of the original Dark Age period), this has the effect of truncating the true time line, obscuring the true chronology by pulling the people and structures of the Golden Age period forward in absolute time to the period we now call the Old Kingdom—a relative time period to which the people and structures of the Golden Age would not actually belong and into which they are being shoehorned. The largely

missing middle section of the rope effectively works to present a false impression of the overall chronology and history.

If we can determine and/or find the largely lost civilization of the First Intermediate Period, we would be forced to move all the giant pyramids, including those at Giza, backward in time to an earlier age, an age to which they may truly belong.

We have shown in the previous chapter that the connection of these structures at Giza with the Belt stars of the Orion constellation, their layout, their dimensions, the precession of the Queens, and so forth, is a highly compelling one. We consider the astronomical alignments of these structures to these stars ca. 10,500 BCE and ca. 2500 CE to be beyond coincidence, as some mainstream commentators have suggested. Furthermore, we maintain that these two alignments were fully intended and serve a very specific purpose. This should not imply, however, that we are remotely suggesting that the Giza pyramids were in fact built in ca. 10,500 BCE; let us be quite clear on that.

To create a linear time line (of any duration), a start and an end point are required. Without either of these end points, it is quite impossible to know the duration or length of the time line, and without knowing the duration of the time line, you cannot make a clock or timetable. Such a linear clock can be created at any time. For example, we could draw a line in the sand and mark 12:00 noon at one end of the time line and 6:00 p.m. at the opposite end. Since we know the duration of the time line, six hours, we can work out—for example—that the halfway point of our linear time line is 3:00 p.m.

The point, however, is that we could have created this linear clock with its six-hour time line at 2:37 p.m. or at any other time. Simply because the time line indicates the times 12:00 noon and 6:00 p.m. at each end of the time line should not imply that the time line was actually created at the times indicated; the times indicated are simply reference markers (calibration points), allowing us to

determine the duration of the time line for the purposes of marking specific and possibly important times (dates) along its length. Without these time markers at each end of the linear clock, we cannot know the clock's duration, and without that information, the linear clock simply cannot function.

The very same principle applies to the linear clock we find at Giza. Simply because the monuments seem to indicate the start date of the time line at ca. 10,500 BCE (Menkaure Queens' Pyramids' alignment to the minimum culmination of Orion's Belt), this should not be interpreted as an indication that this date represents the time when the monuments were actually built. This remote date is merely akin to 12:00 p.m. in our example above, while the Khufu Queens represent 6:00 p.m. in the example, that is, 2500 CE, the maximum culmination of Orion's Belt. As explained earlier, these two culmination dates are linked by the Lehner line.

But the question still remains, when exactly were these structures built? Given the fragmentary and contradictory evidence presented by Egyptology, we feel it is really quite impossible to say with any degree of certainty. And, of course, it is also largely a question of perspective, of how one views time and reconstructs chronologies (in the case of ancient Egypt, highly flawed chronologies). Dr. Lehner cannot find the "missing potsherds" of a former "lost civilization" simply because he may actually be looking in the wrong place—at the wrong end of the rope, to use our earlier analogy. If the missing kings of the Old Kingdom period can be found, if the "lost kings" of the Dark Age of the First Intermediate Period can be determined more exactly, then we will have a better idea of just how far back the early giant pyramids, including those at Giza, may have to be shifted in absolute time.

We do not see that there existed a lost civilization before the giant pyramids were built (as some alternative historians believe). Khufu and his contemporaries who built these structures were, in our opinion, of an earlier period (a Golden Age period that predated the known Old Kingdom period), but due to the flawed conventional chronology of ancient Egypt, this has shoehorned the builders of

this earlier age into the wrong time period. The so-called lost civilization existed after Giza was built, not before it, and so it is little wonder that Dr. Lehner is finding it so difficult to locate the “missing potsherds” of a former high civilization in remote antiquity.

It is not so much a lost civilization—a civilization lost to history—that we should be seeking, because what in fact seems to have happened is that we have an apparently known civilization (the builders of the Giza pyramids, including Khufu) that has been lost in time. It is not the potsherds or other artifacts that have been lost—we have those—but the time frame into which all these artifacts, including the giant pyramids, should properly be placed that is lost or, at least, that has become confused.

In the monuments and artifacts of the period Egyptologists refer to as the Old Kingdom, Dr. Lehner had already found his “missing potsherds,” left behind by the people of the Golden Age (not the Old Kingdom period)—the builders of the great pyramids. The “missing potsherds” Dr. Lehner seeks are lost not from the time of the pyramids’ construction but from the first dark period of ancient Egyptian history—the First Intermediate Period. In recovering the lost history, the missing kings, and the dynasties of this later period, Dr. Lehner (and Egyptology in general) will be forced to reevaluate the existing chronology and perhaps find that they have to shift the great pyramid-building age they believe occurred ca. 2630 to 2450 BCE backward in absolute time to a more remote age —an age to which some evidence suggests these giant pyramids (and the people who built them) may actually belong.

Chapter 4 Summary

Various artifacts seem to indicate that the pyramids existed long before the dynastic period of ancient Egypt.

The early giant pyramids are conventionally dated to ca. 2630 to 2450 BCE through the use of the various King Lists, Manetho's Aegyptiaca, C14 dating of charcoal fragments from the pyramids, and a few inscriptions found on some of the monuments.

The King Lists are fragmented and incomplete. Manetho's Aegyptiaca is a late copy that is also fragmented and incomplete.

The C14 dating of the giant pyramids yields dates of between 400 and 1,200 years older than the period Egyptologists believe the pyramids were supposedly constructed. This dating anomaly is explained by Egyptologists as resulting from the burning of "old wood."

Most archaeologists do not cite C14 dating test results unless the data agrees with their initial assessment of a particular monument or artifact. Some scientists openly question the reliability of C14 dating.

Dendrochronology, the primary method used for calibrating C14 results, is itself beset with issues that raise questions as to its accuracy and usefulness for this purpose.

The First Intermediate Period followed the sudden and inexplicable collapse of the Old Kingdom. This period spawned the phrase “seventy kings in seventy days”—an indication, perhaps, of the rapid turnover of many kings in that period of great upheaval.

The lists of Africanus and Eusebius indicate a potential total of 123 missing kings from the period between the Old Kingdom and First Intermediate periods. This is potentially around 2,000 years (or more) of lost history that, if recovered, would push the pyramids that mainstream Egyptology attributes to the Old Kingdom period (including those at Giza) back in time to ca. 4500 BCE, if not earlier.

5

THE GRAVITY CUBIT

In chapter 3, we demonstrated how the pyramids at Giza can be shown to conform to a unified, homogeneous plan, the underlying design of which would seem to be the Belt stars of the Orion constellation. Of course, after such an architectural plan had been created, it would have had to be scaled up using a measurement system before it could be implemented on the ground.

The Great Pyramid at Giza stands 481 feet tall, with each of its four base lengths measuring almost exactly 756 feet. But why did the ancient architects decide on these particular dimensions? What rationale might they have used? Or is it the case that these dimensions were merely the arbitrary product of a whimsical desire on the part of the Pharaoh Khufu, in whose name the Great Pyramid of Giza is believed to have been built?

It would seem, however, that whimsical or arbitrary dimensions were far from the minds of the architects of the Great Pyramid. As we further explore this question, we will discover that the actual, full-sized dimensions of the Great Pyramid may well have been formed through the use of a very clever scientific technique. We will find also that the ancient Egyptian measure—the Royal Cubit—may also have originally been derived from this hitherto unknown ancient science.

Before the construction of a pyramid could even begin, there would naturally be a plan, or indeed a number of plans, giving the dimensions, angles, and so forth

of the structure, all set to a particular scale. The practical need for such plans would have been every bit as essential in ancient times as it is to us here in the twenty-first century. Though no plans of Khufu's pyramid have ever been found (or, indeed, for any pyramid), it is inconceivable that such a massive undertaking could have been achieved without the use of plans of some kind. It is further unlikely that the implementation—the scaling up—of any such architectural plans could have been achieved without having first developed a standard unit of linear measure.

According to mainstream Egyptology, the standard unit of measure used by the ancient Egyptians was the Royal Cubit, or Mahe, which would be equivalent to around 20.61 inches (52.3 cm), with a small variation between various cubit rods. This measure was subdivided into 7 palms of 4 digits each, giving a Royal Cubit unit measure of 28 equal parts.

Conventional wisdom informs us that the ancient Egyptians defined the length of their Royal Cubit by averaging the length of a man's forearm—from his elbow to the tip of his middle finger. It is unsurprising, therefore, that the ancient Egyptian hieroglyph for the Royal Cubit measure is a symbol representing the forearm. But should the fact that the Royal Cubit is symbolized by the forearm automatically imply that the forearm was the original means by which the Royal Cubit was derived? Or is it equally possible that the forearm hieroglyph actually (and perhaps unwittingly) symbolizes a scientifically based unit of measure to which the male forearm was a very close approximation, and the forearm symbol was thus used to depict the measure?

So what is this scientifically grounded method of deriving the ancient Egyptians' Royal Cubit? And what evidence might support the hypothesis that the origins of the Royal Cubit measure were based in science? To begin to answer these questions we must first attempt to understand the process of creating a measuring system.

A Consistent Measure

Virtually anything—a leaf, a rock, a toe—could be used as the basis of a measuring system, provided everyone within a particular community or society agrees on the particular object being used for the standard unit of measure. If, for example, a seashell is used as the base unit of linear measure, then rulers or "rods" can be made to the exact length of this seashell, which craftsmen can then use to design and build things to the "seashell standard."

If, however, one of these seashell rods is measured from another rod that is, in turn, measured to create another rod, over time the unit of measure will inexorably drift from the original seashell length. To create a perfectly accurate rod length to the seashell standard, it would naturally be best to create the rod from the original source, the seashell, every time a rod was required. In this way the measure is much less likely to drift in its accuracy, producing rod after rod of equal and consistent length.

If, however, the original source measure (the seashell) became lost or was otherwise inaccessible for some reason, a replacement seashell would not give the exact same measure as the previous seashell measure—the original unit of measure. In effect, a whole new measuring system—and everything this implies—would have to be created. And then if this seashell was somehow also lost . . .

The master builders of ancient times would have been every bit as aware of this potential problem as we are today. They would have realized that a better solution to their measure—to prevent the scenario outlined above from ever happening—would be to define a unit of measure that was itself based on some entity or property that would consistently give the same length, time and time again. And even if the original measure became lost or was otherwise destroyed, an exact replica of the unit length could simply and easily be recreated from

scratch.

But what?

In 1790, Thomas Jefferson—some eleven years before he became president of the United States—was charged with the task of defining a new unit of weights and measures for the fledgling new country. In consideration of the problem of devising a standard unit of measure, Jefferson wrote, “There exists not in nature, as far as has been hitherto observed, a single subject or species of subject, accessible to man, which presents one constant and uniform dimension.”[1]

In their groundbreaking book Civilisation One (2004), authors Christopher Knight and Alan Butler, through their analysis of Scottish engineer Alexander Thom’s megalithic yard, came to the very same conclusion as Jefferson. And indeed, as we grappled with the question of finding a possible scientific source to the ancient Egyptian Royal Cubit, we found ourselves also arriving at this conclusion. The natural world simply does not produce anything that is easily accessible and consistently of the same length that could be used as the underlying basis for a unit of measure. Even if we take the average length of a man’s forearm, was this average the same in ancient times as it is today, when much of the Western world has been supersized with all manner of junk food, making us larger than our ancestors? Probably not.

It may well be that nature is unable to produce two items that are consistently exactly the same length, but there are other aspects to our planet that are indeed considered generally consistent and easily accessible—its axial rotation and its gravity! But is it possible to create a linear unit of measure from these two properties of Earth?

Indeed it is. Furthermore, in defining such a unit of measure from these two

properties (axial rotation and gravity), we will be producing a unit of measure that is equivalent to the ancient Egyptian Royal Cubit of 20.61 inches, and—in so doing—perhaps we may also be rediscovering the very method by which the Royal Cubit was originally devised—from the geophysical properties of Earth.

Time and Gravity

When a leaf flutters to the ground in an autumn breeze, it does so as a result of gravitational forces. Newton was the first to recognize this fundamental natural force, which affects every part of our existence here on Earth. Gravitational force is pretty much the same all over the planet with very negligible variations. If, for example, you were to drop a stone or some other object from a tower that is, for the sake of argument, 16 feet high, then—regardless of its weight—it would take that object almost exactly 1 second to hit the ground. Provided the object is always dropped from the same height (16 feet) and does not trap air, it will always take almost 1 second for the object to reach the ground. And, as stated, this gravitational effect is more or less consistent all over the world with negligible latitudinal variation.

We can say that one second of Earth time is equal to 16 “gravity feet” (the distance an object will fall in one second of time). One full Earth day would then be equal to 261.81 miles, or 86,400 (seconds per day) × 16 gravity feet = 1,382,400 feet. It doesn’t matter if we drop a ton or a kilogram; both will fall at the same rate, reaching the ground at the same time. And what’s more, this will never change. To allow an object to fall for precisely 1 second, we will need to construct a drop tower that is 16 feet high. Thus we have a unit of measure (16 feet) that is defined by time (1 second) and gravity, a unit of measure that can be consistently reproduced virtually anywhere on Earth and in any age.

Of course, calibrating a drop tower to produce a drop height of exactly 1 second’s duration would be problematic, if not impossible. One second of time is simply too quick for humans—especially in ancient times—to have accurately measured. If, however, the duration was longer—say 5 or 10 seconds—this would make calibrating the drop height much easier. However, this does not simply mean constructing a drop tower that is 5 × 16 feet, for, although gravity is constant, it also causes falling objects to constantly accelerate! This means that

the higher the drop becomes, the more a falling object will gather speed in its journey to the ground—gravitational acceleration. The effect of this means that for an object to fall for a duration of only 5 seconds would require a drop tower of over 400 feet! Clearly this would be quite impractical; there has to be a simpler method of using time and gravity to define a linear unit of measure.

The Pendulum

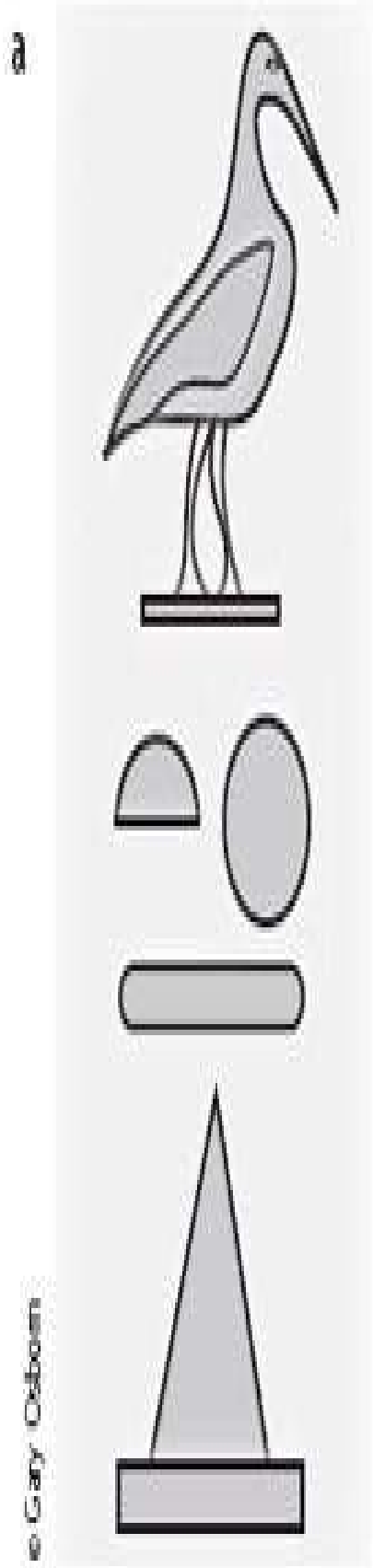
Gravitational force acting on a simple pendulum can produce a very similar effect, but without the need to build a drop tower of over 400 feet. To achieve a 2-second pendulum swing (a 1-second outward swing and a 1-second return swing) requires the pendulum cord length to be a fraction over 3.25 feet (39 inches/99.1 centimeters) in length—much more practical and manageable. By calibrating the swing of the pendulum to a 30-second hourglass or water clock until the pendulum produces exactly 30 swings to the 30-second timer, the ancients could not have failed to produce a pendulum cord length of a fraction over 39 inches. Gravity dictates it! A longer cord length would produce too few swings within the 30-second duration, whereas a shorter cord length would produce too many swings within the same period.

And thus we have defined the "gravity cubit." This unit of measure will be almost identical all over Earth, with a fluctuation in the gravitational force resulting in the tiniest fractional difference in the pendulum cord length—so small, in fact, as to be negligible. It is also worth noting here that the gravity cubit is almost identical in length to the modern meter of 39.37 inches!

The height of the Great Pyramid is 5,772 inches. This, in turn, is equal to 148 gravity cubits (5,772 ÷ 39). But why 148 gravity cubits? Why not a nice rounded number like 150 gravity cubits? What is so significant or special about the number 148?

The possible answer to this riddle presented itself to us in one of ancient Egypt's most enigmatic and puzzling hieroglyphs—the Akhet (figure 5.1a).

As stated in chapter 2, Egyptologist Maria Carmela Betro tells us that the Akhet hieroglyph represents the setting or rising place of the sun on the horizon, as opposed to the more accepted view that the word means “horizon.” What is also of interest is that the later depiction of the word Akhet is symbolized with the sun rising/setting between the center of two mounds (figure 5.1b). It struck us that not only might Akhet mean the rising/setting point of the sun, as Betro insists, but that being centered between two mounds could be an indication of the setting sun at the equinox, the point when the sun is precisely centered on the horizon between the two solstices.



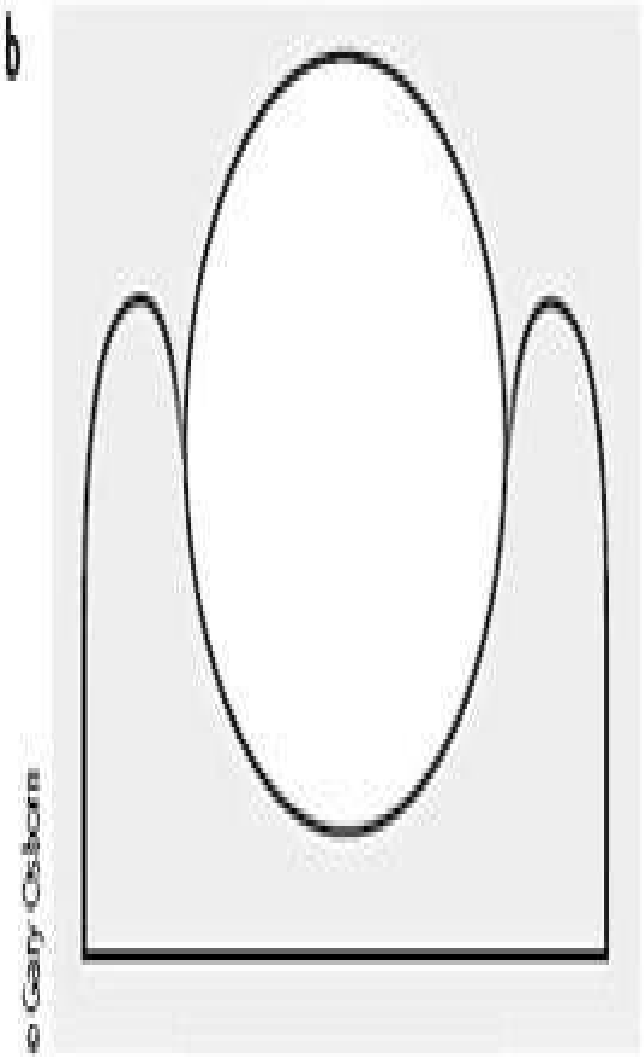


Figure 5.1a. Akhet Khufu hieroglyph (Old Kingdom period)

Figure 5.1b. Akhet hieroglyph (New Kingdom period)

Could it be that the height of the Great Pyramid of Khufu—148 gravity cubits—was perhaps determined by the setting sun at the equinox, that is, the length of time it takes the sun to fully set at Giza as depicted in the Akhet hieroglyphs? If this were the case, the sunset at Giza on the equinox should take 148 seconds (148 × 39 inches = 5,772 inches).

Incredibly, on the autumn equinox at Giza, it takes the sun precisely 147.757 seconds to set from when the lower rim of the solar disc of the sun first touches the horizon until the upper rim of the solar disc fully sets below it. Naturally it would make sense for the ancient designers to round up this sunset duration to 148 seconds, since it is inconceivable that they would have been able to measure precisely a fraction of one second, a fraction of one swing of a pendulum.

Thus the height of the Great Pyramid of Khufu can be defined by the gravity cubit (39 inches) multiplied by the duration of the sunset at Giza at the autumn equinox (148 seconds), which is, of course, governed by Earth's axis of rotation. And with the base of the Great Pyramid being in a ratio of 1.571 to the pyramid's height, this is equivalent to 232.51 gravity cubits (9,067 inches). But how do we then find the ancient Egyptian Royal Cubit of 20.61 inches from the gravity cubit of 39 inches?

Adding the height and width of the Great Pyramid together gives us 14,839 inches. This is an interesting figure in its own right simply by virtue of the fact that it demonstrates the two key values of 148 and 39! We have found through the use of time (148 seconds) that we can define the height of the Great Pyramid. If we simply extend this idea and use the number of minutes in half of 1 solar day (720 minutes), we easily find the ancient Egyptian Royal Cubit:

$$14{,}839 \div 720 = 20.61 \text{ inches}$$

It is conceivable, then, that the Royal Cubit of the ancient Egyptians may well have been based on the combined height and width of the Great Pyramid (in inches) divided by the minutes in half of 1 solar day—20.61 inches. And given that the average length of a man's forearm also approximates this length, this glyph may have been used to symbolize the measure. Or it might even be that later Egyptians lost the knowledge of how their cubit had been created (through the use of gravity and the Earth's axial rotation) and simply adopted the arm hieroglyph.

There are other curious aspects linking the Great Pyramid's dimensions with time. Take, for example, its slope angle of 51.84°. The ancient Egyptians used a 360-day calendar and added an extra 5 epagomenal days at the end of each year to give a 365-day calendar. Excluding the epagomenal days, we find in 1 Egyptian year there are 31,104,000 seconds. In 1 leap year of 366 days, there are 31,622,400 seconds. This represents a difference of 518,400 seconds, and in these numbers (5184) we are reminded of the slope angle of the Great Pyramid.

If this wasn't curious enough, we then find that the 365-day year × 16 feet = 5,840 × 720 minutes (half of 1 solar day) = 4,204,800 inches = 350,400 feet. This figure just happens to be almost exactly the sum of the Great Pyramid's perimeter of 3,024 feet + its height of 481 feet = 3,505 feet (× 100) = 350,500 feet.

Furthermore, as realized by independent researcher Spiros Boutsikos, if we then take 10,000,000 times the distance between the G1 to G3 pyramid centers, then the time it would take an object to fall this length (with the acceleration of gravity at Giza) is 43,725 seconds, which gives us 12 hours, 8 minutes, and 45 seconds.

It so happens that this period is the time it takes the sun to traverse the sky from

sunrise to sunset at the autumn or vernal equinoxes at Giza. The Great Pyramid —a monumental expression of time and space.

Before we move on, there is one more thing that seems to be implied in the gravity cubit—that the creators of the ancient Egyptian Royal Cubit seem to have understood the inch. Intriguingly, we find that the height of the Great Pyramid (5,772 inches), when divided by phi (1.618034), reduces this height to almost exactly one inch after 18 divisional iterations, thus:

5772.00
3567.29
2204.71
1362.58
842.12
520.46
321.66
198.80
122.86
75.93
46.93
29.00
17.93
11.08
6.85
4.23
2.62
1.62
1.00

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Figure 5.2. A phi (1.618034) division of the Great Pyramid's height produces the inch.

Thus the height of the Great Pyramid divided by eighteen iterations of phi may have been the original source of the humble inch. It may also help explain the remarkable expression of the phi spiral in the Great Pyramid seen in figure 5.3.

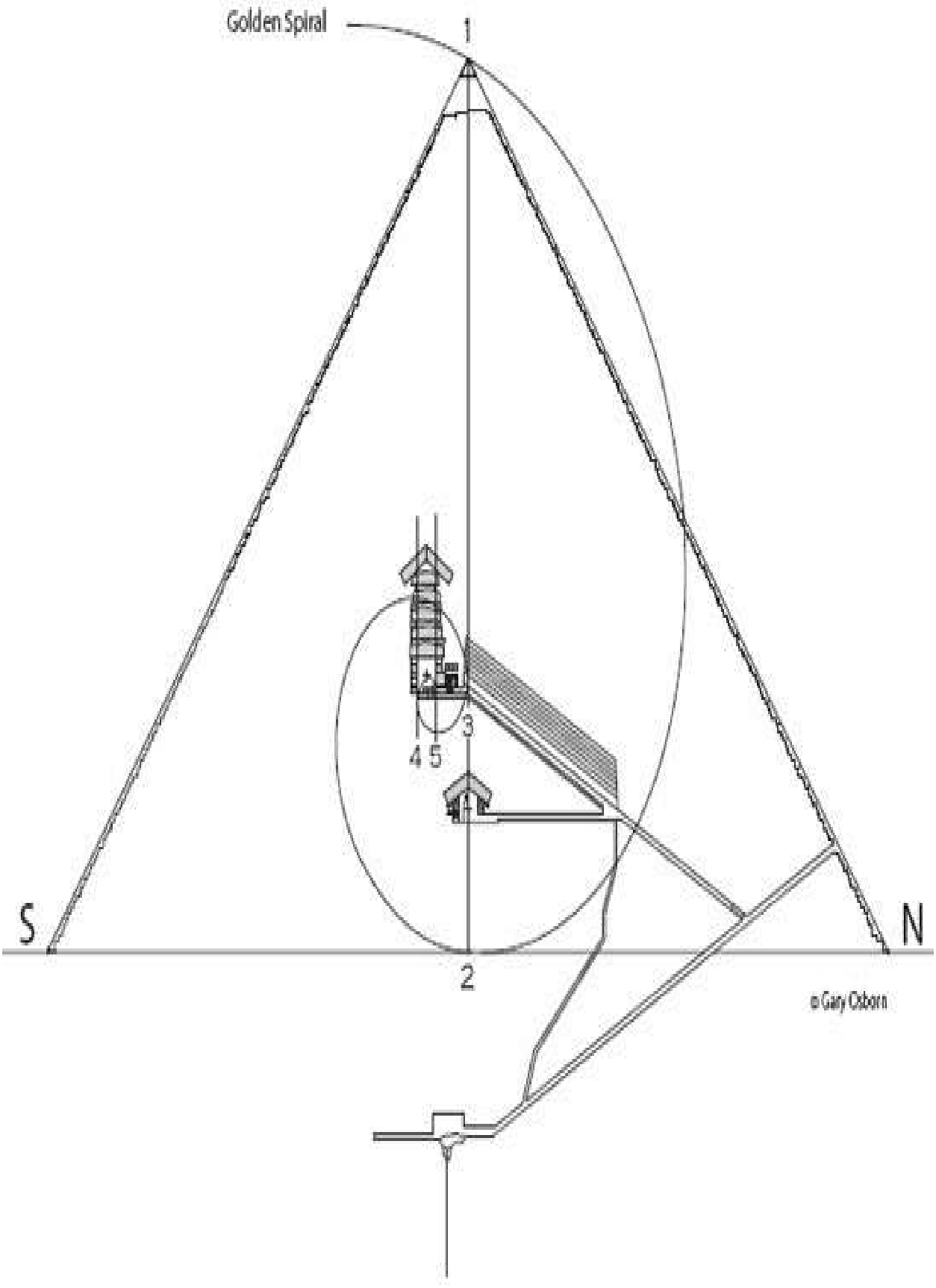
Golden Spiral
1
S
N
2
3
4 5
© Gary Osborn

Figure 5.3. The Great Pyramid phi spiral

Heavenly Designs

Of course, critics of the gravity cubit hypothesis will undoubtedly point to the fact that the ancient Egyptian Royal Cubit was in use hundreds of years before the Great Pyramid at Giza was built, therefore it would have been impossible for the dimensions of the actual Great Pyramid to have influenced the unit of measure in the manner we propose.

The simple fact is, however, there is no need to physically build the Great Pyramid in order to have determined what its eventual dimensions would be. A scaled plan for the Great Pyramid (along with the other Giza pyramids) could have been devised long before a single block of any pyramid was ever set in place. The plan's scale would naturally have been based on the gravity cubit and incorporated into any plan. In this regard it is interesting that the Great Pyramid's height consists of 280 Royal Cubits, with the cubit measure itself divided into 28 equal parts, thus perhaps demonstrating a 1:10 scale.

But what do the ancient Egyptians say of such plans? As mentioned earlier in this book, etched into the stonework in the colonnade of the Temple of Horus at Edfu is the following curious inscription in ancient Egyptian hieroglyphs: "They [the temples] were built according to an architectural plan which was supposed to have been revealed in a codex that fell from the heavens at Saqqara in the days of Imhotep."[2]

What this inscription seems to imply is that the structure that the great vizier, Imhotep, built for the Third Dynasty Pharaoh Djoser at Saqqara—the world's first Step Pyramid—was actually constructed from a plan that had apparently come, not from the ancient Egyptians of the Third Dynasty (or, indeed, from any ancient Egyptian dynasty), but from somewhere else, from some earlier time. It further implies that every "temple" from Imhotep's time to those constructed by

much later Egyptian dynasties was based on this ancient “codex” from “heaven.”

Although Imhotep probably oversaw and engineered the actual construction of Djoser’s Step Pyramid at Saqqara, he seems not to have been its architect, since the plan or codex was apparently “revealed” to Imhotep. Who the original architects of this heavenly codex were will likely remain a mystery.

However, in this proposed unit of linear measure—the gravity cubit—we may, once again, be observing the faint echoes of a forgotten science, the subtle fingerprints of a highly sophisticated civilization where such profound scientific knowledge and understanding may have been commonplace, an earlier civilization with a knowledge and application of Earth science that seems to have been totally lost to subsequent Egyptian dynasties after the collapse of the Old Kingdom.

Chapter 5 Summary

No plans have ever been recovered for any of the pyramids built in ancient Egypt.

Having devised a plan for a particular construction, a specific scale is required to properly implement the plan.

The ancient Egyptians used as their common unit of measure the Royal Cubit, which measures approximately 20.61 inches. It is believed by orthodox Egyptologists that this standard unit of measure was based on the average distance from a man's elbow to the tip of his middle finger.

The gravity cubit length of a little over 39 inches is determined by ensuring a pendulum swing of one second at the latitude of Giza.

It can be shown that the Great Pyramid's height is equal to 148 gravity cubits, or 39 inches × 148 (seconds) = 5,772 inches.

The value of 148 seconds may have been determined by the duration of the sunset at Giza on the autumnal equinox, which lasts almost exactly 148 seconds.

The ancient Egyptian Akhet hieroglyph (sunset point) may allude to the

equinoctial sunset that underpins the science behind the creation of this standard unit of measure.

The base length of the Great Pyramid is determined by its height × pi ÷ 2 (5,772 × [3.14159÷ 2] = 9,067 inches).

The Egyptian Royal Cubit can then be defined as the Great Pyramid's height + width ÷ 720 (minutes in half of 1 day), or 5,772 + 9,067 = 14,839 ÷ 720 = 20.61 inches.

Given that the average length of the male forearm is equal to the length of the Egyptian Royal Cubit, the forearm hieroglyph may have come to symbolize the Egyptian Royal Cubit even though this unit of measure—in the form of the Gravity Cubit—could originally have been determined through the use of science (Earth's rotation and its gravity).

6

SACRED EARTH GEOMETRY

Many have said, and indeed have discovered for themselves, that the Great Pyramid—as we have seen in previous chapters of this book—is a mathematical compendium incorporating all manner of mathematical, astronomical, and cosmological formulas.

Although mainstream Egyptologists and historians tend to ignore many of these factual scientific findings and the conclusions people have drawn from them—and, if pressed, would respond “Coincidence!” or “Fortuitous!”—many researchers and explorers have discovered that the overall dimensions of the Great Pyramid incorporate measurements from which Earth’s size and shape can be calculated (with the use of two obelisks, as explained in chapter 1), as well as the distance between Earth and the moon and the distance between Earth and the sun.

It has also been demonstrated by a number of researchers and writers that the Great Pyramid can be viewed as a scale model of the Northern Hemisphere of Earth incorporating the geographical degrees of both latitude and longitude and that the distance between the location of the Great Pyramid and the North Pole is the same as the distance between the surface of Earth and its core-center. It has also been noted that the measure of the original perimeter of the pyramid—the length of all its four sides when added together—equals exactly one-half of an arc-minute of latitude at the equator.

In his book Pyramid Odyssey (1984), author William R. Fix first revealed how the Great Pyramid can be viewed as a model of Earth at a scale of 1:43,200. Fix took into account the estimated size of the pyramid's perimeter based on the latest geodetic survey at that time, stating that the scale is true to an accuracy of one or two millimeters in respect of the height of the pyramid. Regarding these findings, independent pyramid researcher John Tatler comments, "He [Fix] has shown that not only is the height of the Pyramid in direct relation to the Polar Radius of the Earth by this ratio but also the perimeter at the sockets at the base has the same ratio to the world's best estimates of the circumference of the Earth at the Equator."[1]

Fix also stated that this clearly demonstrates how the builders of the Great Pyramid "must have successfully measured the entire earth and recorded these measurements in the dimensions of the Great Pyramid."[2]

He further states:

It would seem that whoever built the Great Pyramid knew the earth's circumference and polar radius with astonishing precision, recording both the flattening of the poles and the equatorial bulge and they knew them with an accuracy comparable to that recorded by satellite surveys from space. Thus we find knowledge from the remote past that is disquieting. We are accustomed to thinking that we are ever progressing.[3]

It should be noted that 143,200 is also a specific precessional number—"one that is repeated in Egyptian myth, text and construction,"[4] according to one reliable source. He notes, "The precession cycle lasts approximately 25,920 years, which results in a new constellation appearing on the horizon each 2,160 years . . . and 2,160 × 2 = 4,320 years."[5]

As we will now reveal here and in the following chapter, the Great Pyramid can essentially be viewed as a miniature model of the whole Earth, its angular geometry incorporating a picture/diagram of Earth's orbital dynamics and the obliquity of its axis, and, furthermore, this picture is both determined and confirmed by the fact that the very position of the Great Pyramid on Earth is also incorporated within its angular geometry as a geodetic self-reference. More on this later.

The Location of the Great Pyramid

APEX OF THE NILE DELTA

Inspired by Egypt and encouraged by certain individuals who had a strong Masonic connection, in 1798 Napoleon Bonaparte, leading his 38,000-strong French army, landed in Alexandria, crossed the desert on foot, fought the Turkish Mamluks in the shadow of the pyramids of Giza, and went on to conquer Cairo—realizing his own personal objective to raise the French flag over Egypt.

According to his own memoirs, Napoleon embarked on this venture for “glory,” and it remains entirely possible that the twenty-nine-yearold general recognized his own destiny in the story of Alexander the Great, who, it is said, had also visited the Great Pyramid. Soon after arriving in Egypt, to their surprise, Napoleon’s savants noted that the Great Pyramid was situated at the exact apex point of the Nile Delta.

It was worked out that if one took a map of the delta and drew an arc centered on the Great Pyramid, the arc actually defined the area of the delta, enclosing its outer perimeter precisely.

In other words, it was discovered that with the apex of the delta in the south centered on the Great Pyramid, the northern promontory or cape of the delta is exactly north of the Great Pyramid, and that lines extending from both the northwest and northeast corners of the Great Pyramid actually define the boundary edges of the delta within a perfect sector or quadrant of 90° (figures 6.1 and 6.2).

The Location of the Great Pyramid

CENTER OF THE WORLD'S LANDMASS?

Those who have studied the Great Pyramid will be familiar with its geodetic position on Earth and will also be aware of the deeper implications some researchers have seen in this, as it is now a common observation, if not a belief, among many alternative historians that the Great Pyramid is located at the center of the world's landmass and that, given the highly significant nature of this unique Earth location, it may have been consciously sited there for this very reason (figure 6.3).

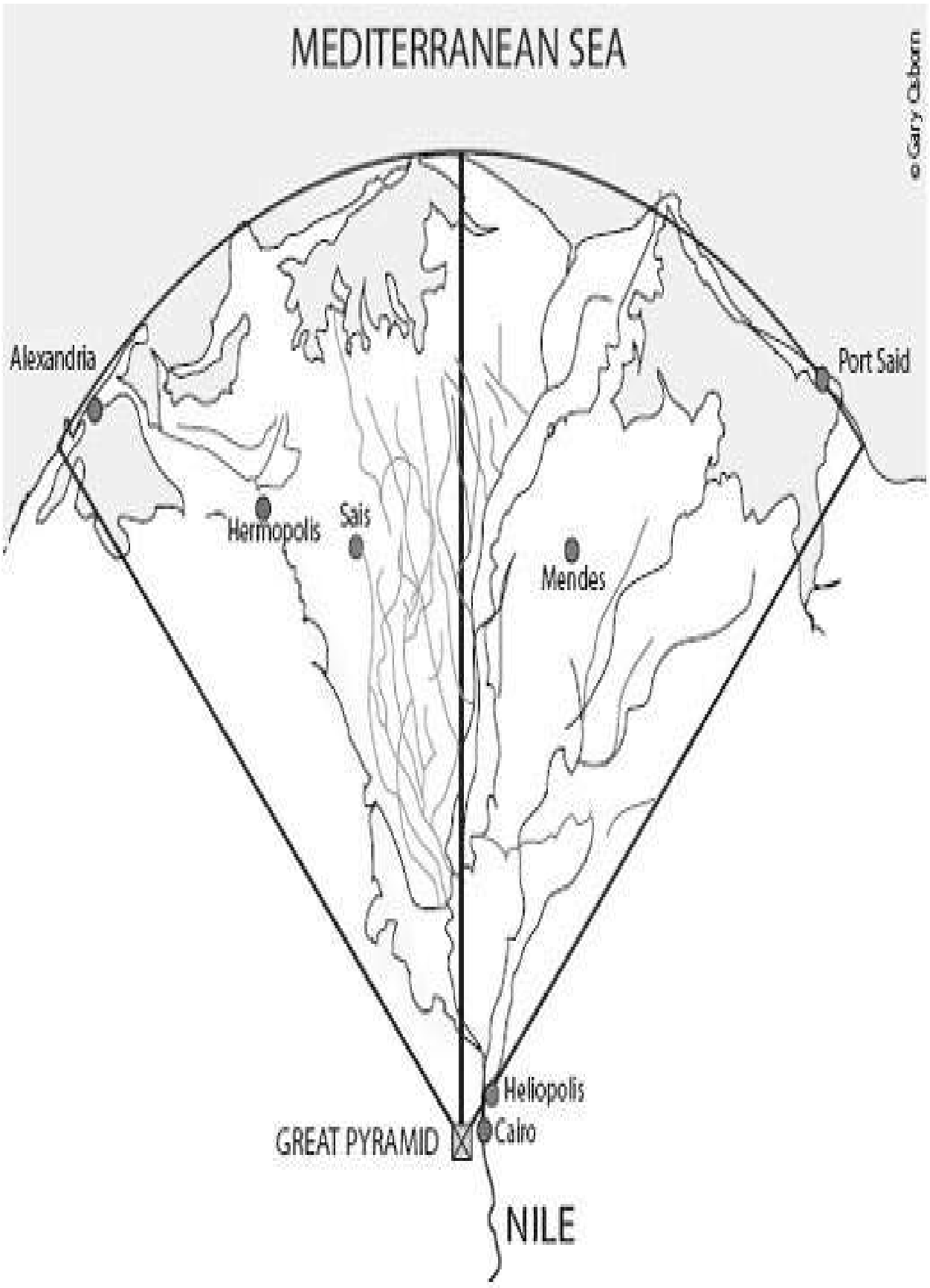
MEDITERRANEAN SEA
© Gary Osborn
Alexandria
Port Said
Hermopolis
Sais
Mendes
Heliopolis
GREAT PYRAMID
Cairo
NILE

Figure 6.1. Great Pyramid at the apex of the Nile Delta. The corners of the Great Pyramid define the natural boundary edges of the delta, all within a perfect quadrant of 90°.

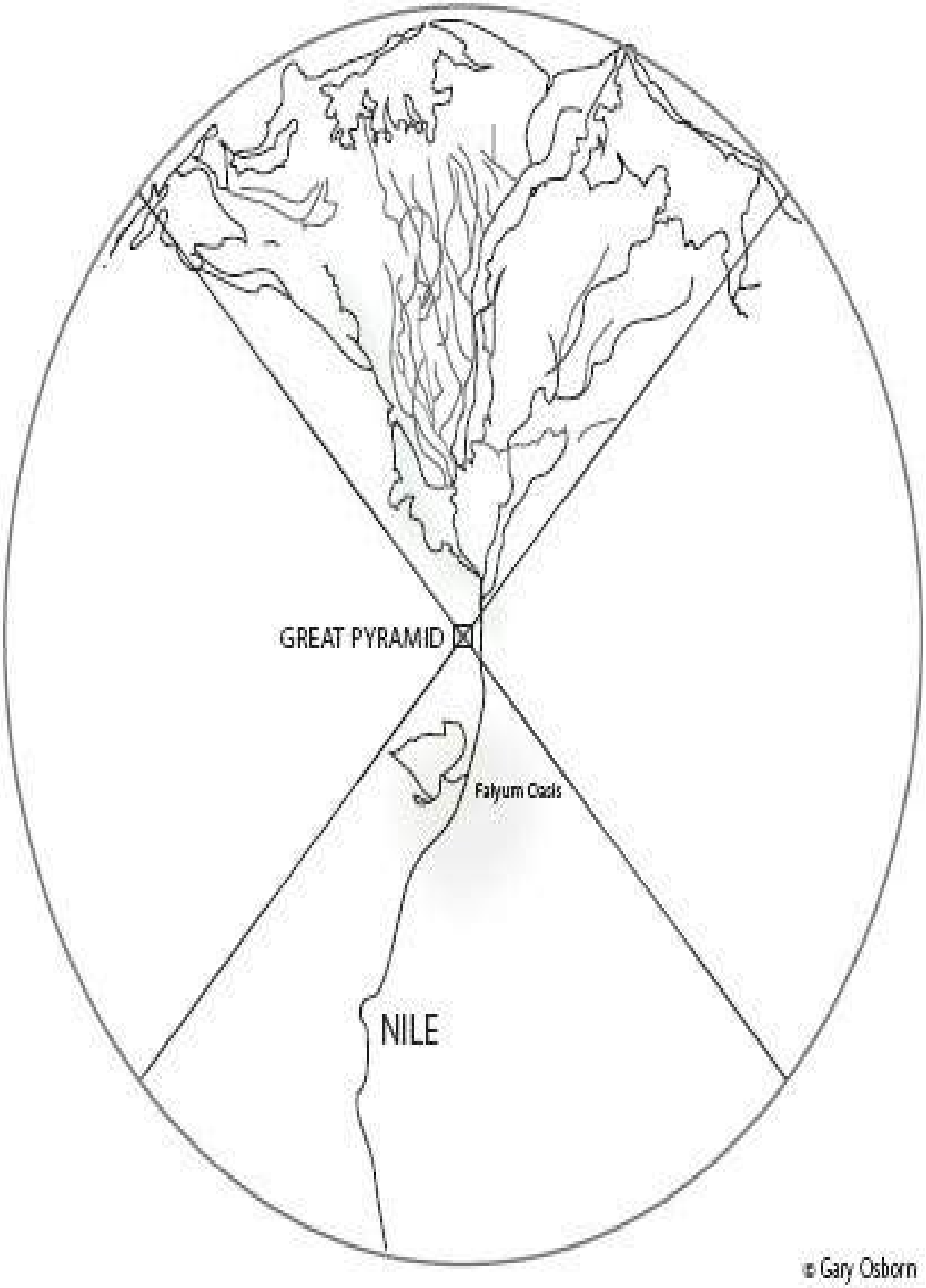

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Figure 6.2. The Nile Quadrant as marked by the Great Pyramid in the center

One well-known detail that was first noted by the nineteenth-century pyramidologist and astronomer royal of Scotland, Charles Piazzi Smyth, is that like a “jewel in a crown,” the Great Pyramid sits squarely at the geographical center of the total landmass of Earth, directly connecting Europe, Africa, and Asia.

Early surveyors who visited Giza, scholars like Professor Sir William Flinders Petrie, who closely studied this “seventh wonder of the world” on site, concluded that the Great Pyramid is positioned at the center of Earth’s landmasses; and it must be said that when looking at a world map to plot its location, one is tempted to agree with this conclusion without the fuss of precise measuring. Only those who are intuitively sensitive to the bigger picture recognize the fact that in being too precise one can miss the point of it all.

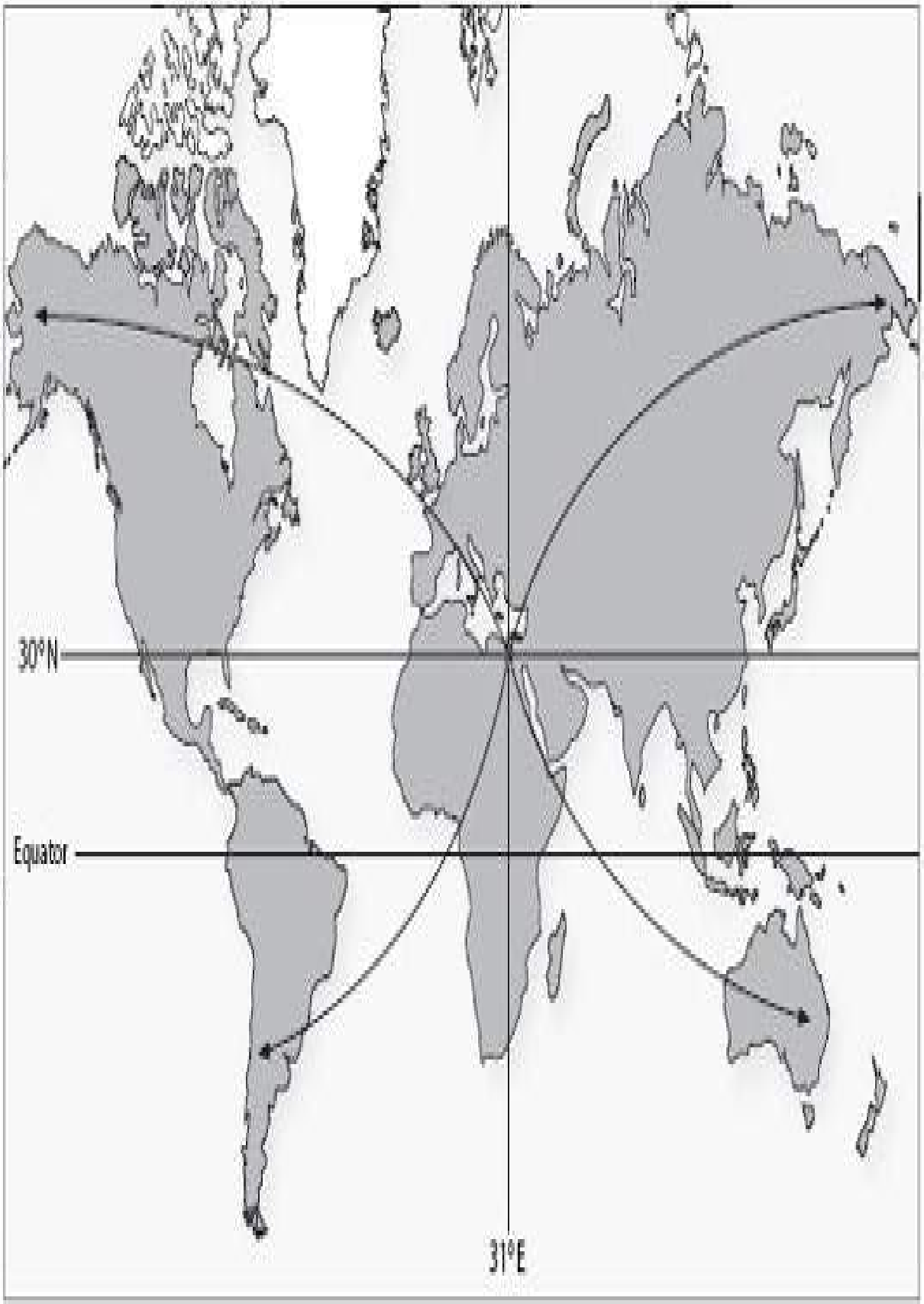

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Figure 6.3. Great Pyramid located at the center of Earth's land masses, with reference to the four cardinal directions (N, S, E, W) and also the four ordinal directions (NW, NE, SW, SE)

Petrie was careful not to appear to assume that the placement of the Great Pyramid at this central location was actually intended. Although this highly significant Earth location was a fact in his mind, it was expressed as merely an observation and—for the sake of his reputation as a serious-minded scholar—served merely to give the impression that the placement of the Great Pyramid at this unique Earth location could only have been the result of simple happenstance.

However, if the alternative historians are correct that someone actually planned this, that it was indeed fully intended that the great monuments we find on the Giza plateau were sited at that location because of its unique properties, then logic tells us that the slow rise of Egyptian civilization was but a consequence of this favored location and not the other way around. It implies that the Great Pyramid was constructed at this site long before the ancient Egyptians of the dynastic period had settled there, seemingly by a pre-Egyptian, scientifically astute civilization that, through astute observation of this particular Earth location, seems to have understood the entire topography of Earth—a conclusion author William R. Fix has little difficulty in proposing.

But just how much weight can be given to the fact that the Great Pyramid may have been deliberately constructed at the center of Earth's landmasses (because of this unique location) when it also happens to be sited at the apex of the Nile Delta, a natural Earth feature that just also happens to be at the center of the Earth's landmasses? We have to ask, did the builders select Giza to build the Great Pyramid because Giza was located at the delta apex, or did they select the delta location because the delta apex (ergo Giza) just so happened to reside at the center of the Earth's landmass?

The problem is—as always—proving intent, but quoting John Tatler, “If one is to send a message the prime requirement is of course that people will read it, it is no good putting it in a bottle, throwing it in the ocean and then hoping it will be found. One must place the message somewhere where it simply cannot be missed, a place so significant that its very location makes a notable statement in itself.”[6]

This is an apt observation, both in the context of the above observations and in the following, as we shall see.

The Location of the Great Pyramid

EQUATORIAL AND ECLIPTIC PLANES

It appears that the location of the Great Pyramid is indeed a “notable statement in itself,” perhaps giving us the first clue that this impressive man-made structure contains comparative data pertaining to the obliquity (tilt) of Earth’s rotational axis—and presumably for good reason.

Perhaps the first interesting thing that one discovers about the Great Pyramid is that it is perfectly oriented to the four cardinal points of the compass—being in error by only three arc-minutes—a discrepancy of less than 0.06 percent. We are told that the most accurately north-oriented structure today is the Paris Observatory; however, even this is six arc-minutes off from true north.

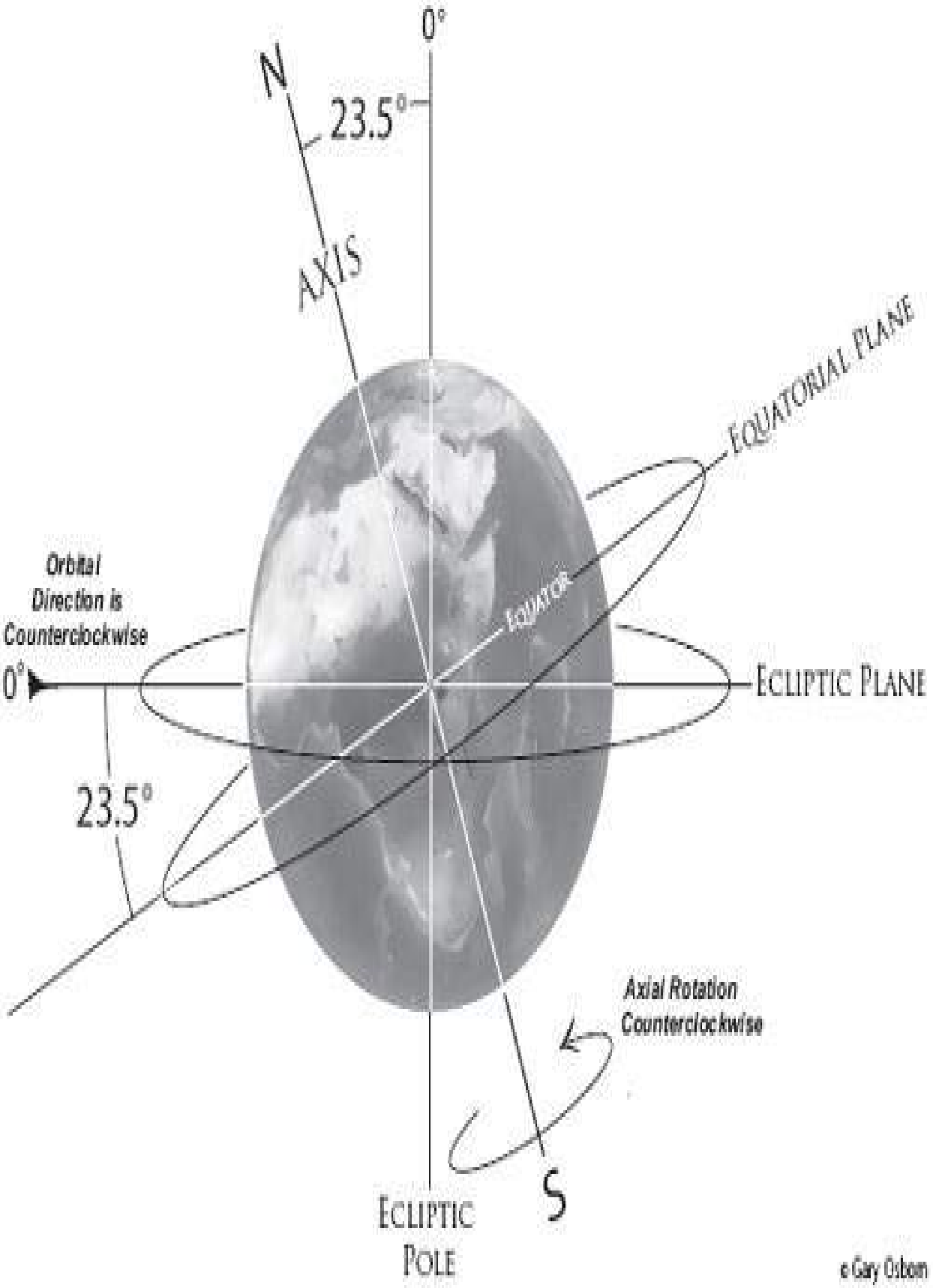

0°
N
23.5°
AXIS
EQUATORIAL PLANE
Orbital
Direction is
Counterclockwise
0°
EQUATOR
ECLIPTIC PLANE
23.5°
Axial Rotation
Counterclockwise
ECLIPTIC
POLE
S
© Gary Osborn

Figure 6.4. Earth’s axis of rotation, which also determines the angle of the perpendicular equator, is tilted 23.5° in relation to the squared ecliptic plane known as the ecliptic cross.

Like a huge sundial, the sharp, pointed shadows cast by the Great Pyramid from the sun’s position in the sky will naturally mark the annual dates of the summer and winter solstices as well as the vernal (spring) and autumnal equinoxes. The annual seasons result from the fact that Earth is tilted (presently around 23.5°) in respect to the plane of Earth’s orbit around the sun—known as the plane of the ecliptic.

The present value of Earth’s tilt of 23.5° is popularly used as a general figure in most geophysical textbooks and related literature, although the precise figure for the obliquity (tilt angle) of Earth’s rotational axis is presently nearer to 23.44°, and in arc-hours and -minutes it is 23°, 27 minutes. Geophysical data analysis reveals that the angle of Earth’s axis is slowly decreasing.

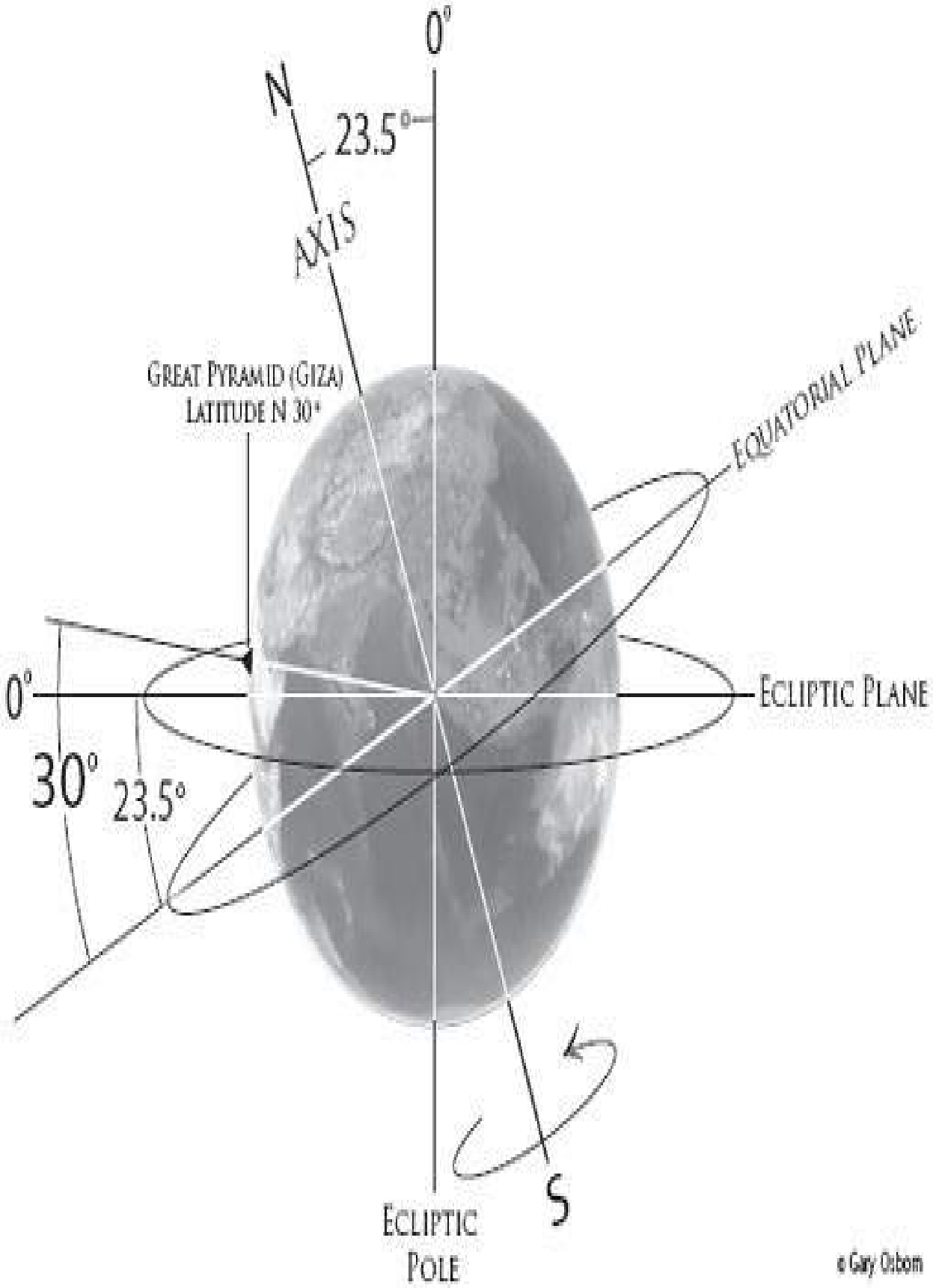

0°
N
23.5°
AXIS
GREAT PYRAMID (GIZA)
LATITUDE N 30°
EQUATORIAL PLANE
0°
ECLIPTIC PLANE
30°
23.5°
ECLIPTIC
POLE
S
© Gary Osborn

Figure 6.5. The location of the Great Pyramid of Giza is 30° north latitude from the equator.

The Great Pyramid of Giza sits within a fraction of the 30th Parallel—almost 30° north latitude from the equator and just over 31° east longitude from Greenwich. Its precise location is given as 29°, 58 minutes, 51 seconds north in arc-hours and -minutes, and in degrees the location is 29.98°—just 2,125 meters short of exactly 30° north latitude.

This relatively small discrepancy could be explained by the necessity to construct the Great Pyramid on the most suitable elevated site closest to the 30° north location. The fact that the Great Pyramid was built over a great mound of bedrock, which apparently was formerly worshipped as the “primordial mound,” may have influenced the selection of the eventual site for the construction of the Great Pyramid and the other pyramids and monuments at Giza.

While the above is fairly common knowledge, what many of us barely consider is that as Earth rotates daily on its rotational axis of 23.5°, the Great Pyramid will move between two extremes—taking twelve hours to move from one position to the other and back again.

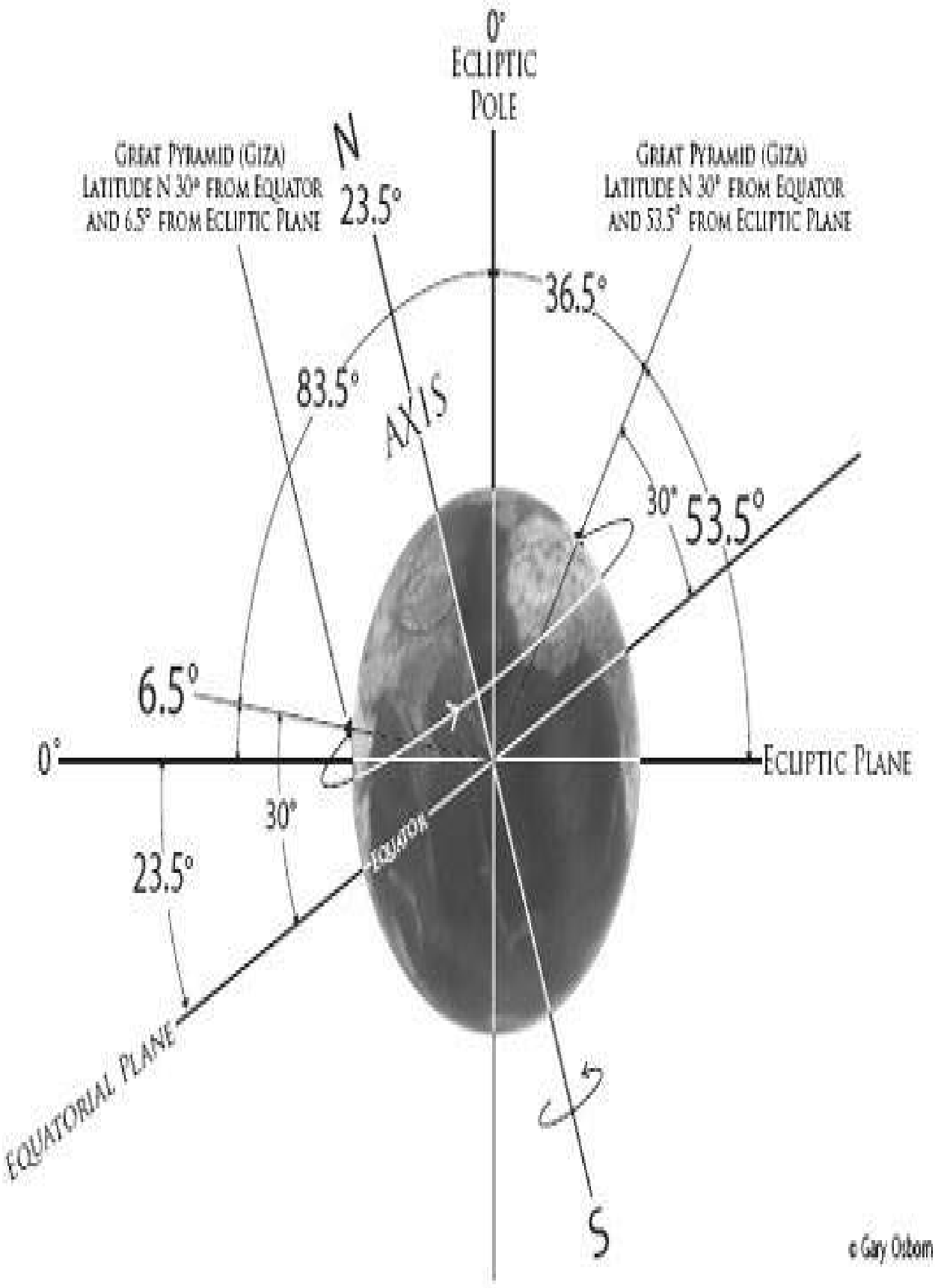

0°
ECLIPTIC
POLE
GREAT PYRAMID (GIZA)
LATITUDE N 30° FROM EQUATOR
AND 6.5° FROM ECLIPTIC PLANE
N
23.5°
GREAT PYRAMID (GIZA)
LATITUDE N 30° FROM EQUATOR
AND 53.5° FROM ECLIPTIC PLANE
36.5°
83.5°
AXIS
30°
53.5°
6.5°
0°
ECLIPTIC PLANE
30°
23.5°
EQUATOR
EQUATORIAL PLANE
S
© Gary Osborn

Figure 6.6. The Great Pyramid and its two extreme positions from the ecliptic plane with each daily rotation of Earth on its axis of 23.5°. These extreme positions (6.5° and 53.5°) are twelve hours apart.

These two positions are:

36.5° from the North Pole of the ecliptic and 53.5° from the ecliptic plane

83.5° from the North Pole of the ecliptic and 6.5° from the ecliptic plane.

We find, then, that the Great Pyramid is offset from the ecliptic plane by some 6.5°—a peculiar value that will become very familiar to us as we continue our investigation. The fact that the Great Pyramid comes as close as 6.5° from the ecliptic plane has been stated in but one source, as far as we are aware—Ancient Freemasonry (1919) by Frank C. Higgins.

As noted, the location of the Great Pyramid is our first clue that the Great Pyramid may contain information pertaining to the obliquity of Earth's axis, and perhaps for good reason. And if information pertaining to the obliquity of Earth's rotational axis does exist within the Great Pyramid, then what better way could there be to preserve and pass on such information than to have it encoded in the angular geometry of the pyramid itself?

In viewing the angle values presented in this chapter, the reaction of most orthodox historians and Egyptologists would be that such findings are absurd, as it is very much mainstream opinion that the ancient Egyptians never used the

360° system of angular measure that we use today. However, as we progress through the pages of this book, we will reveal that this mainstream view may be quite erroneous.

We are told that from the time of Sneferu, ancient Egyptians used the seked, a device used to measure the slope angle of an inclined surface. The seked incorporated the ancient Egytian Royal Cubit of seven palms, each palm consisiting of four digits. The sides of the Great Pyramid at 51.84°, and in minutes and seconds of arc, 51°, 51 minutes, 14 seconds, have a seked value of 5.5—that is, five palms and two digits. It should be noted that the notion that the ancient Egyptians used the seked to design and maintain the gradient of the Great Pyramid is still theoretical, as are many of the established beliefs we have about the Old Kindom Egyptians and their culture.

The fact that the sides of the Great Pyramid apparently use a 5.5 seked (five palms and two digits) is somewhat curious. Why not a round number of palms such as seked 5 or seked 6? This fact alone is perhaps an indication that the Great Pyramid’s slope was not designed first, but that the pyramid’s slope is merely a consequence of some other underlying design method, an idea we will consider in more depth later.

The Code of Degrees

Because the information that the Great Pyramid may hold is conveyed in angles, the information is essentially invisible, becoming visible or discernible only through the reconstruction of the pyramid blueprint, plotting and drawing each of the lines from point to point, from which a meaningful picture may emerge.

Because they are not immediately noticeable or discernible to the naked eye without some examination and use of measuring instruments, degree angles are an excellent way to encode information—especially information relating to Earth's geophysics and orbital dynamics. And, as we noted in the opening chapter to this book, given the numerous sources that also contain information presented as an angular measure (of Earth's rotational axis), it seems quite possible that such methods may have been used throughout history to both encode and convey important information associated with a system of knowledge that seems, for the most part, to have been kept secret.

If, as we are proposing in this book, there exists an ancient and profound knowledge that is in some way related to Earth's axis, how would such information be recorded? In myth, certainly, but also by using degree angles. Again, in consideration of the angles we will shortly present from the Great Pyramid, it appears that once again we have knowledge hidden in plain sight.

Could the ancient pyramid builders (stonemasons) laying down the pyramid blocks have somehow learned of this hidden knowledge from the astronomer-priests of the time and then encoded it within their own mythology (where they stored most of their secrets)? From what we understand, the Masonic Degree system is a clear indication of ascendant knowledge that can be reached only through certain levels of degrees—surely a clever allusion to the secret method of angle encryption or encoding that seems to have been used throughout history.

As mentioned earlier in this book, it is said that Freemasonry arose from obscure origins in the late sixteenth century and was officially established in Europe in 1734. However, the book Ancient Freemasonry (1919) by Thirty-Second-Degree Freemason Frank C. Higgins reveals that its brand of esoteric knowledge is much, much older, reaching far back into the mists of antiquity.

We also noted earlier in this book that it is a fact that pyramids, sphinxes, obelisks, other ancient Egyptian symbols, and related iconography are endemic to Freemasonry, and so it is a reasonable assumption that the secrets of what amounts to a sacred knowledge of geometry, architecture, and stonemasonry, including that which was practically applied in the planning of Giza and the building of the Giza pyramids, have been preserved by the Freemasons—a fraternity whose secrets are originally accredited to the earliest architects and stonemasons and who would naturally view this ancient knowledge as their rightful inheritance.

So we are also looking at the secrets of the Freemasons. Is it any wonder that we find the same angles repeated time and time again in their tracing boards, emblems, and other paraphernalia, as well as in the paintings of the old masters and other sources long before Freemasonry was officially established?

Also, the degree system of knowledge employed by Freemasonry would imply that the 360° system of angular measure may also have been known and used in ancient times. The 360° circle is divided 5 times by 72, by which a five-sided pentagon is created (a potent symbol of Freemasonry), or a five-armed star like we see in ancient Egyptian star glyphs. The three angles of an isosceles triangle are 72°, 54°, and 54°. The number 72 is also associated with precession—again, the sun on the horizon taking almost 72 years to move backward just 1° along the 360° zodiac in a cycle of roughly 25,920 years.

The number 72 has been encoded in many myths, along with many other precessional numbers—the ancient Egyptian myth of Osiris being a prime

example. Like the ancient value of 25,920, long recognized as the duration of the precessional cycle—known as the Great Year—these precessional-related numbers all reduce to 9, because that made them easier to encode.

Three Points

Our drawing of the Great Pyramid (figure 6.7) is to scale and based on the accepted measurements as recorded by William Flinders Petrie during his survey of the pyramid between 1880 and 1882.

Naturally, using our own 360° system, we would be looking for angles with the same geodetic and/or Great Pyramid-locale-related values as we see in figure 6.6—6.5°, 23.5°, and 30°. And, unsurprisingly, it does not take a great deal of searching, head scratching, or fumbling around with a protractor to find these very same angles within the angle geometry of the Great Pyramid, once we know what we are looking for. Indeed, by examining our to-scale cross-section drawing, we find that the most specific key points of the Great Pyramid are actually connected by these very same angles!

We will begin with a simple drawing of the Great Pyramid so as to delineate the key points we will be using. In cross-section, the pyramid becomes a triangle with only three points:

Apex

South vertex

North vertex

To demonstrate these findings, we will begin with an east-west cross-section diagram of the Great Pyramid (looking west)—a simple triangle.

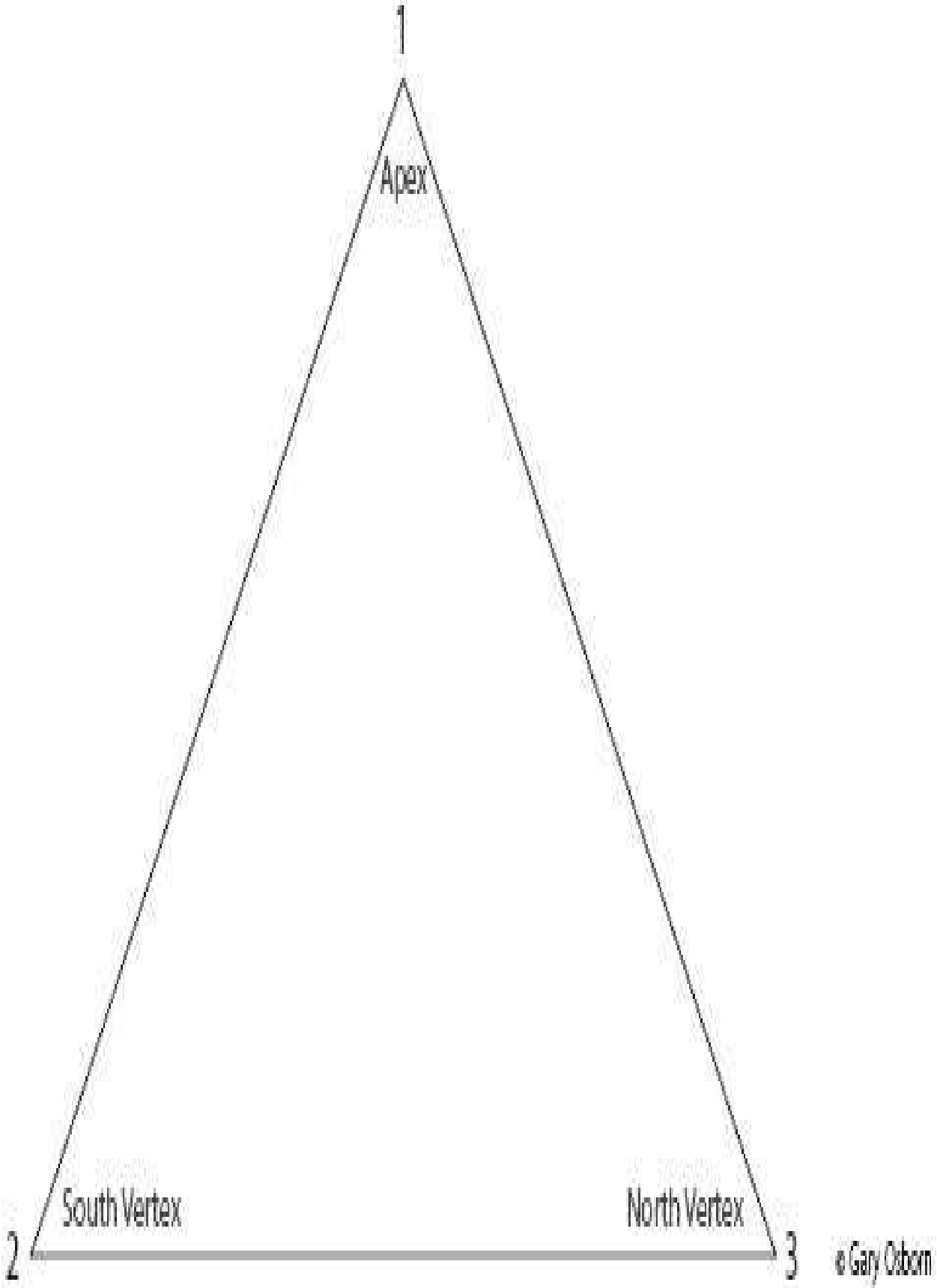

1
Apex
South Vertex
North Vertex
2
3
© Gary Osborn

Figure 6.7. A cross-section of the pyramid shows a triangle with three points.

As explained earlier, we know that the Great Pyramid, as it rotates around Earth's rotational axis of 23.5°, comes to within 6.5° of the plane of the ecliptic. Let us now plot a line at this precise angle down from the apex of the Great Pyramid (figure 6.8).

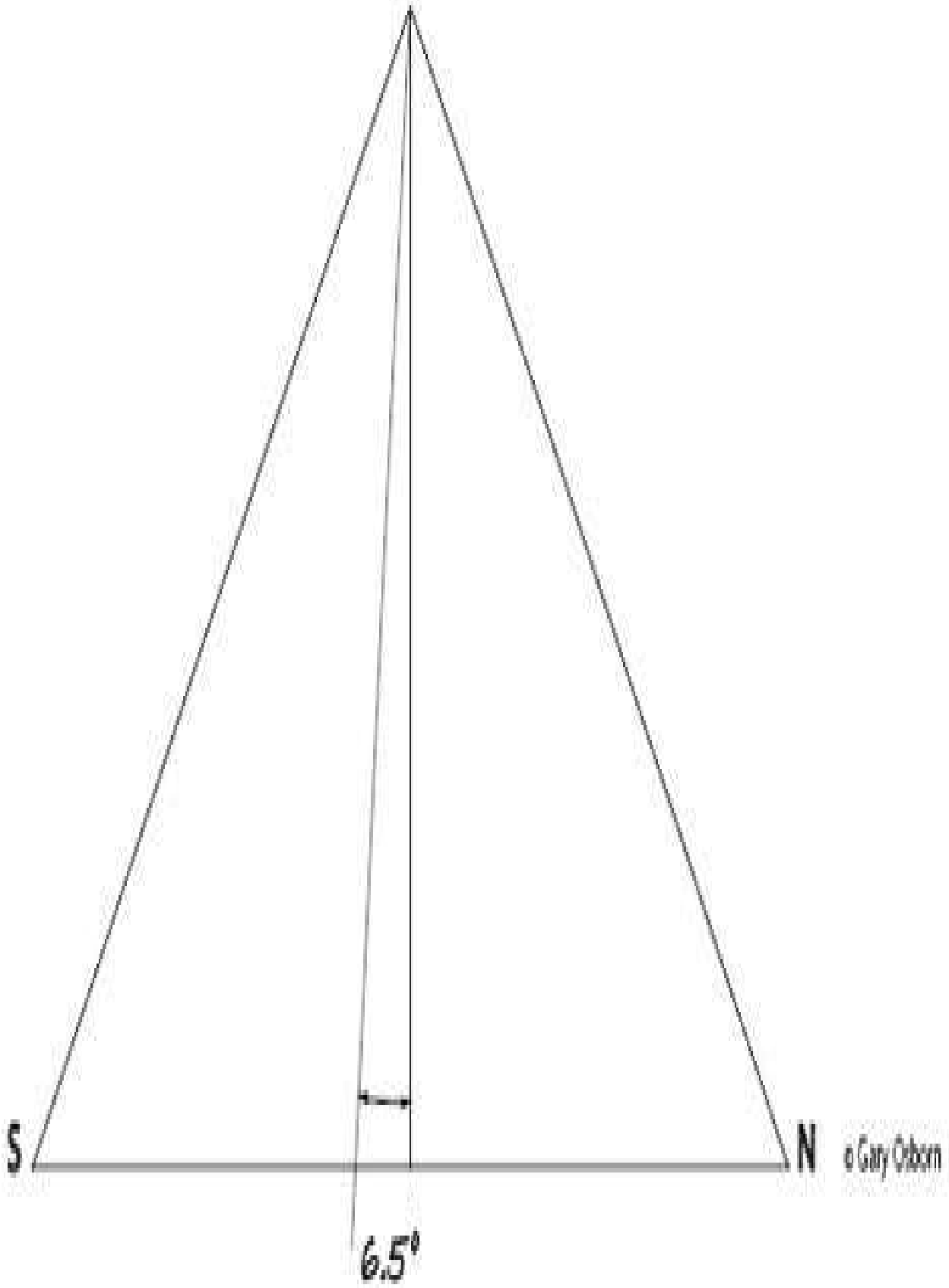

S
N
© Gary Osborn
6.5°

Figure 6.8. Plotting a 6.5° line from the Great Pyramid apex and toward the south

Plotting this line of 6.5° from the Great Pyramid's apex—the first of our three points and toward the south vertex—already results in a highly significant alignment in that this 6.5° line precisely intersects the vertex of the King's Chamber shafts (figure 6.9).

Again, assuming that we do not know where our next line is going or what it may point to, we will now plot the angle of 23.5° from the second point—the south vertex of the Great Pyramid (figure 6.10).

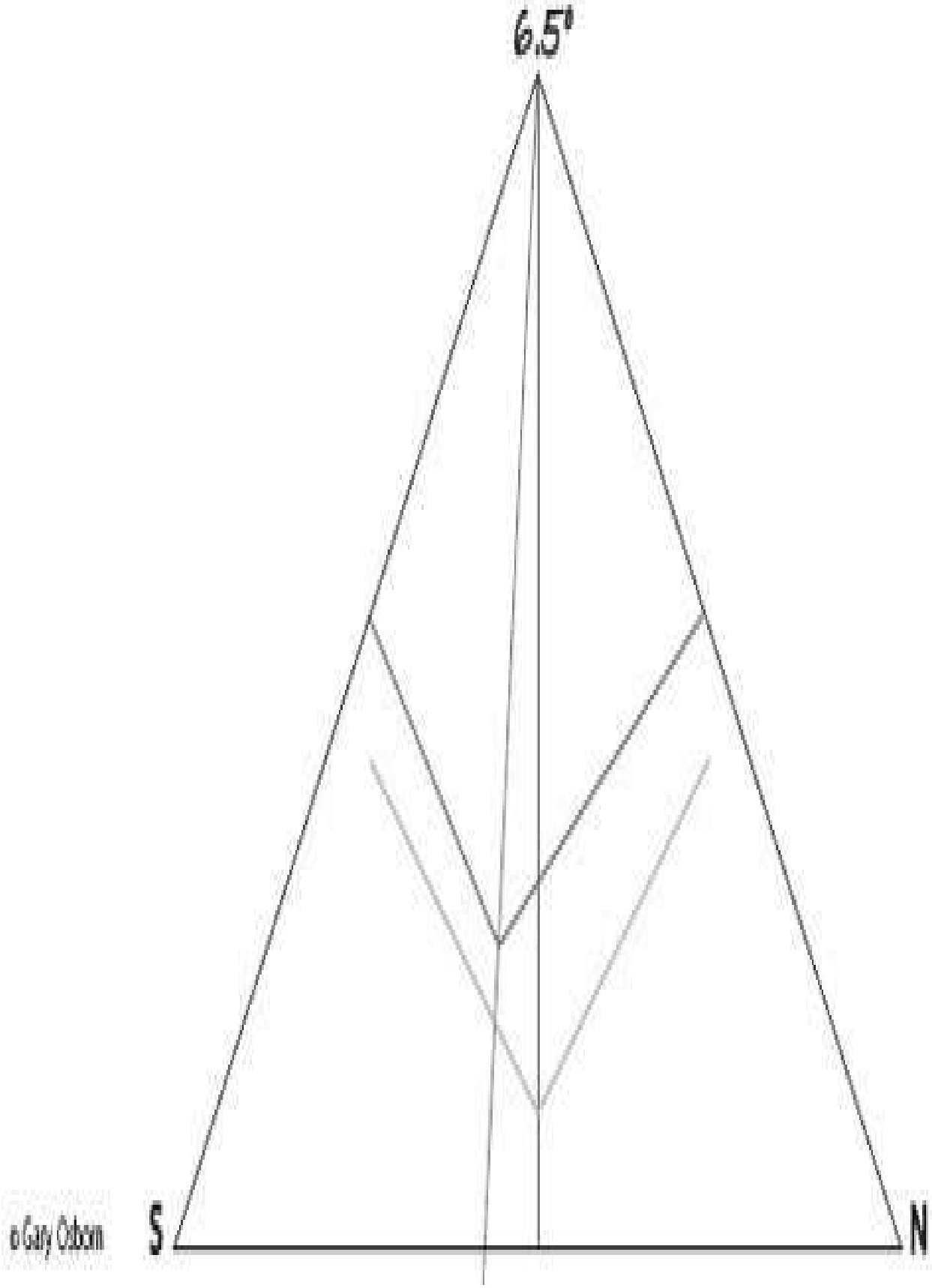

6.5°
S
N
© Gary Osborn

Figure 6.9. The Great Pyramid in east-west cross-section, showing the shafts. Via the apex, the vertex of the upper shafts is offset by 6.5° from the vertex of the lower shafts.

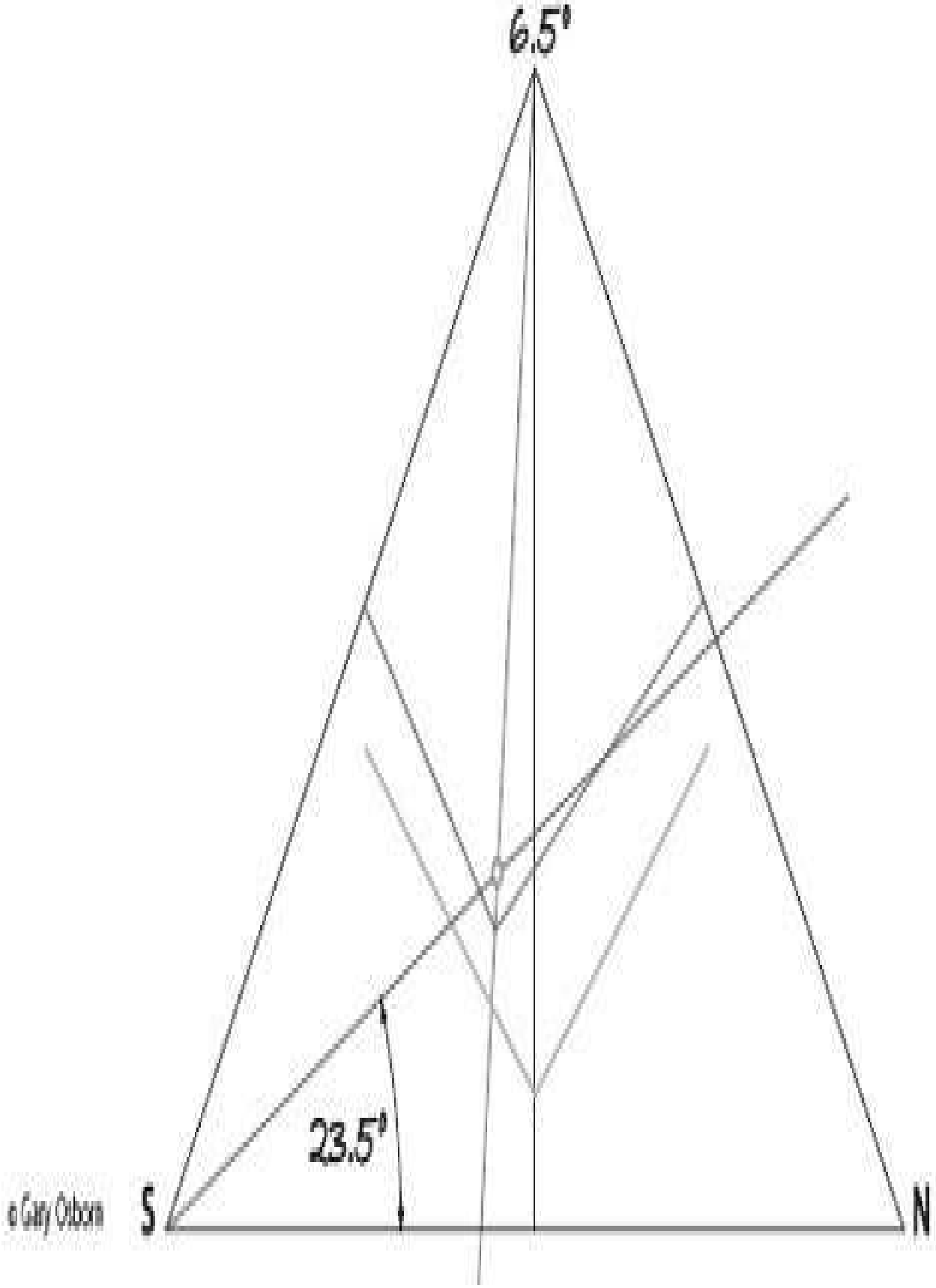

6.5°
23.5°
S
N
© Gary Osborn

Figure 6.10. The angle of 23.5° from the south vertex and where it intersects the 6.5° line

That both these angles plotted from two of the three pyramid vertices do interact in a meaningful way that corresponds to the orbital characteristics of Giza and the Great Pyramid is perhaps confirmed by the fact that both these angles intersect each other within one-half of a degree of the point-center of the King's Chamber (see appendix 1, "Precise Angles"). Given the enormous size of the Great Pyramid, it is not unreasonable to take the view that these intersecting angles effectively serve to position the King's Chamber within the structure (figure 6.11).

By chance, these significant angles could have crossed each other anywhere within the vast internal dimensions of the Great Pyramid, but—remarkably—they just happen to intersect at the center of the King's Chamber, arguably the focal point of the entire pyramid.

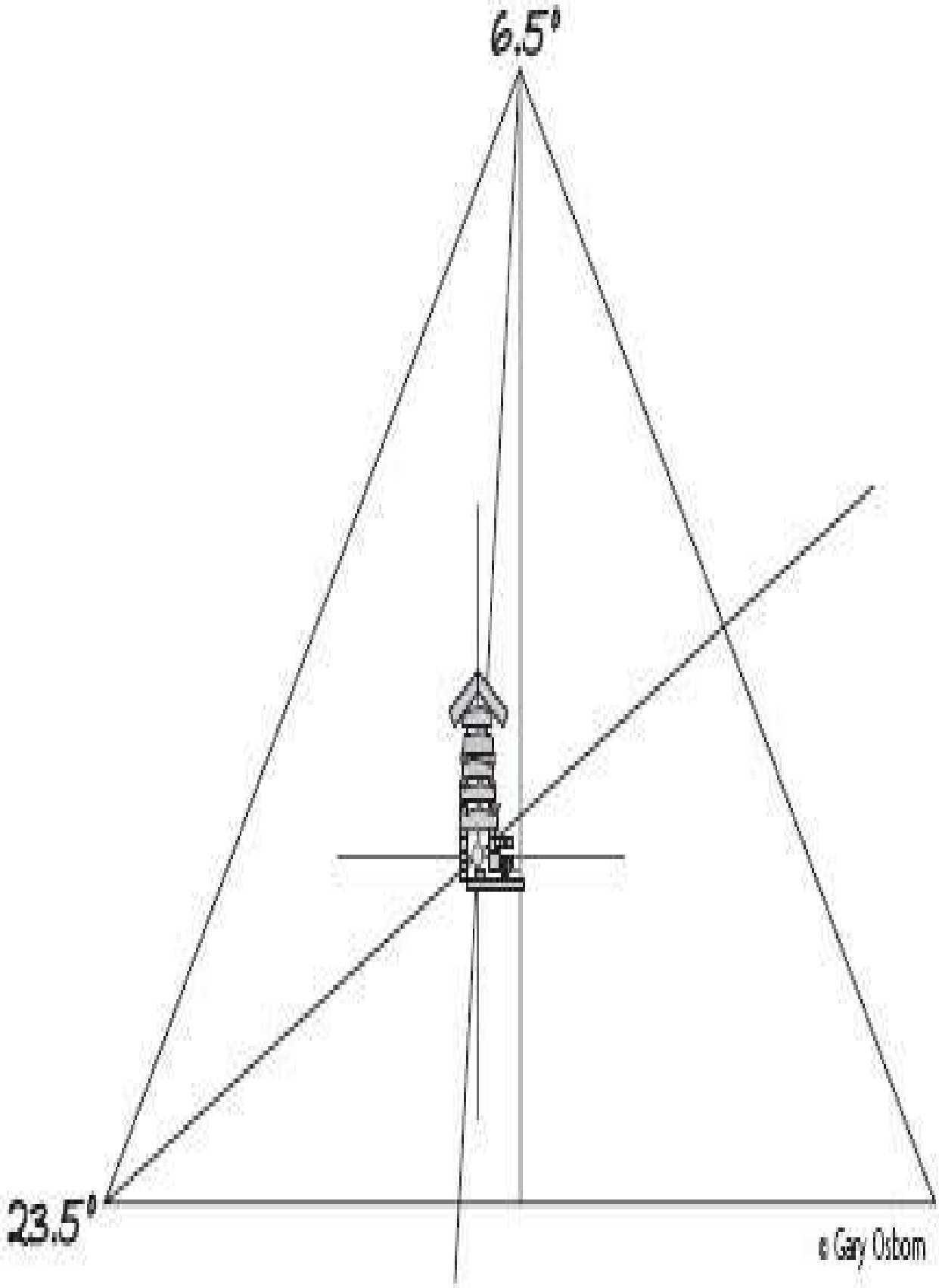

6.5'
23.5'
© Gary Osborn

Figure 6.11. The angles of 23.5° and 6.5° intersect the center of the King's Chamber, thereby fixing its position within the Great Pyramid. (Shafts not included for clarity.)

So far, so good. But what of the third point—a line from the north vertex of the Great Pyramid in cross-section? Does this present anything of significance in relation to Earth's orbital dynamics? It would seem that it does, but before we consider this line, let us take a quick look at the angles presented by the second chamber of the Great Pyramid, the erroneously named Queen's Chamber.

The central vertical axis of the Great Pyramid actually runs through the midplane of the Queen's Chamber (as shown by the vertex of its shafts), and we know that this chamber is positioned just above the vertex of its shafts. Based on what we have already discovered with the King's Chamber and again using our scale drawing, the next logical step would be to measure the angles from the Great Pyramid's north and south vertices to the center of the Queen's Chamber. For the angles presented in this chamber to conform to the emerging picture and provide corroboratory evidence that will take us one more step beyond any notion or belief that this is all the result of simple coincidence, the angle that connects the north vertex with the center of the Queen's Chamber has to have a correlating, geodetic relationship with the other angles already found in the King's Chamber. At this stage, this is a tall order.

With only a cursory glance at the angles in the Queen's Chamber, whatever these angles may be, we can immediately discern that they cannot be 23.5°, 6.5°, or 30°. In fact, upon measurement, we find that both these angles are very close to 11.75°. Upon first discovering this value, it would appear somewhat meaningless until, however, we realize that 11.75° is exactly half the angle of 23.5° we find in the King's Chamber (figures 6.12 and 6.13).

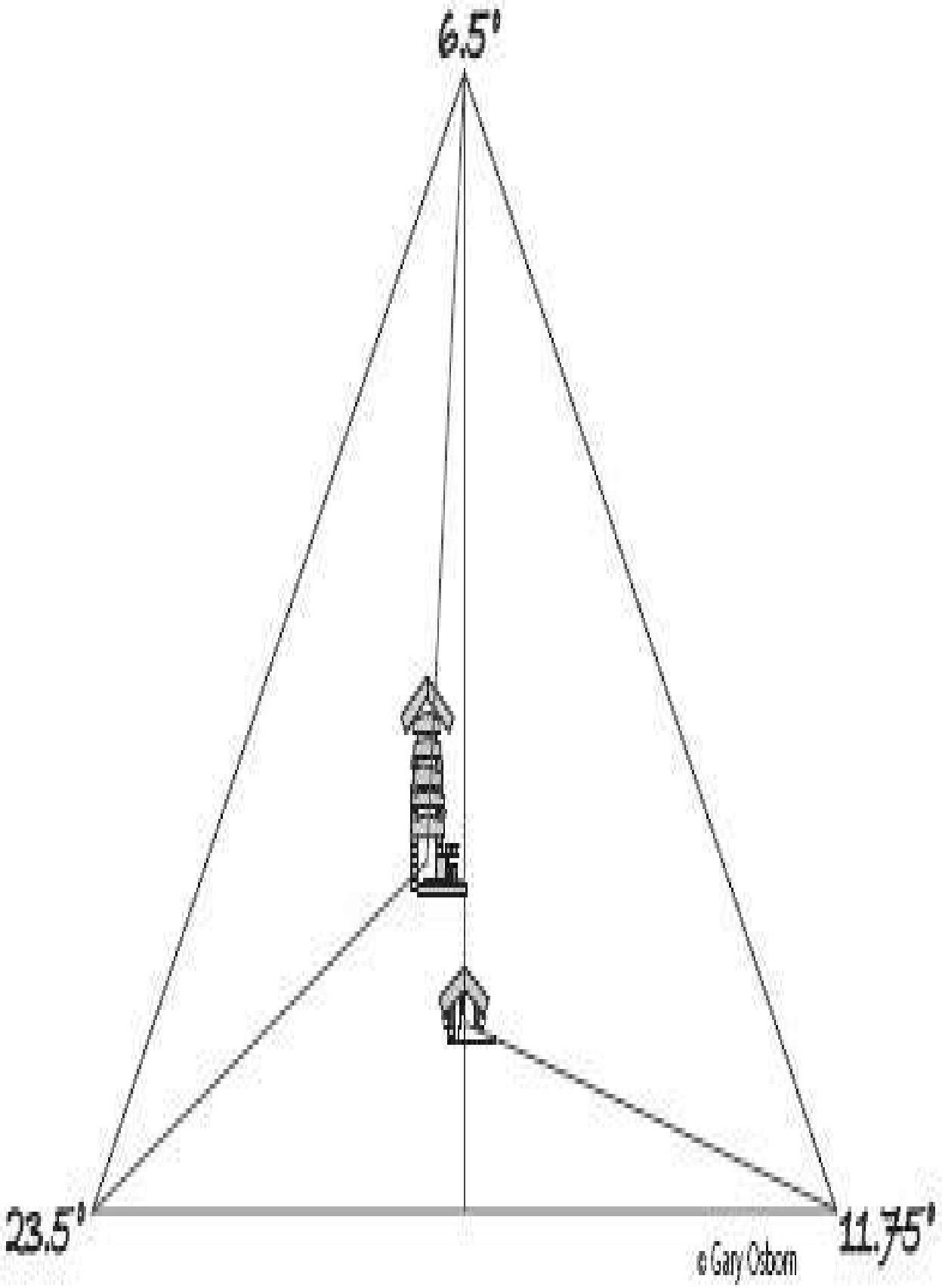
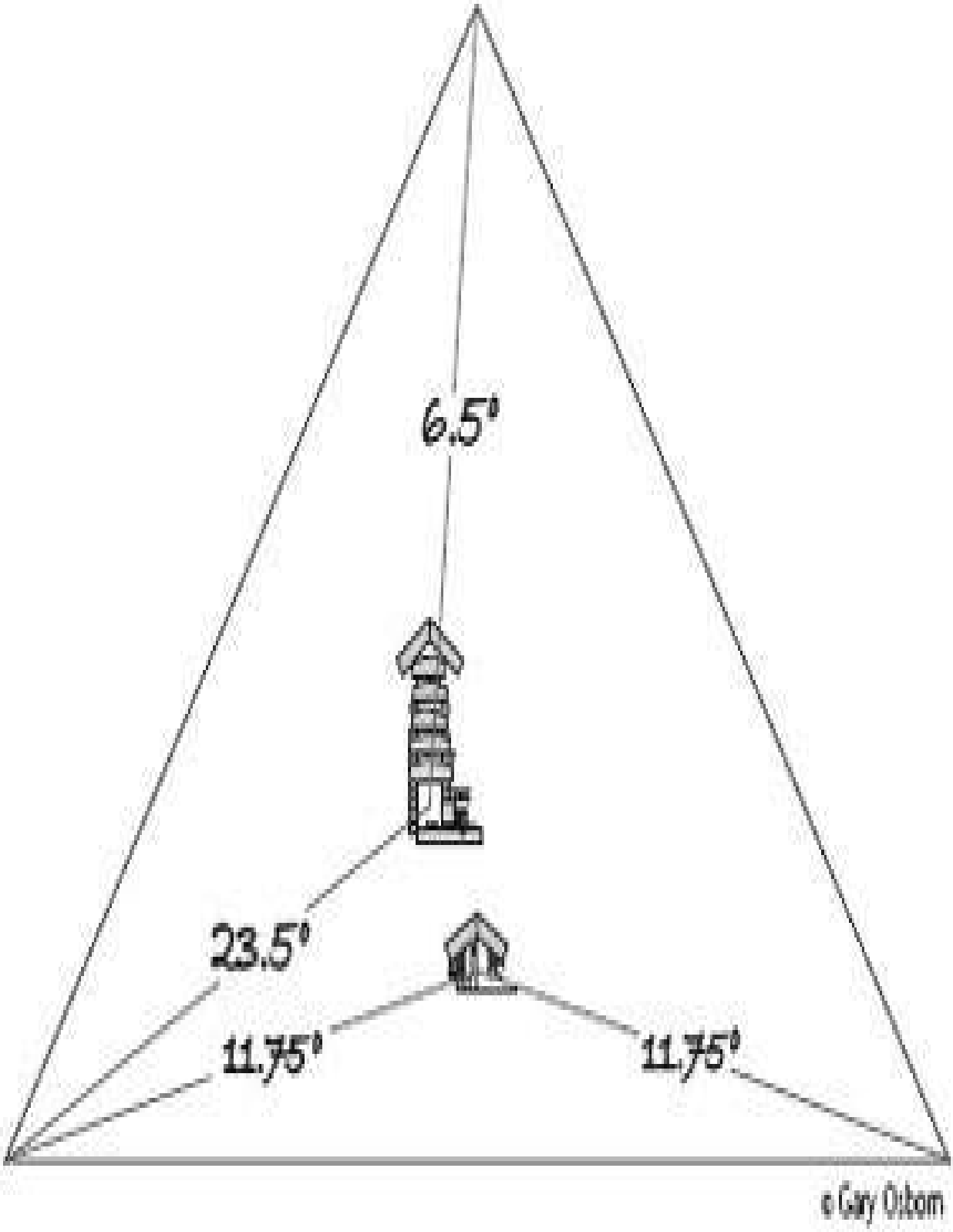

6.5'
23.5'
11.75'
© Gary Osborn

Figure 6.12. The angle of 11.75° intersects the center of the Queen's Chamber, thereby giving its position within the Great Pyramid. (Shafts not included for clarity.)

So, against considerable odds, once again we find that the angles from the north and south vertices of the Great Pyramid to the center of the Queen's Chamber are indeed compatible and consistent with the previous angles we have found, in that the sum total of these two angles—23.5°—is the same as those with which we began in figure 6.6 on page 181, angles that correlate with the Great Pyramid's geodetic location and thereby its orbital dynamics on Earth.



$2 \times 11.75' = 23.5'$

Figure 6.13. Two angles of 11.75° intersecting the center of the Queen's Chamber, both angles adding up to 23.5°

What if we now total the values of these four angles together?

$$11.75° + 11.75° + 23.5° + 6.5° = 53.5°$$

As mentioned, as Earth rotates daily on its axis of 23.5°, the Great Pyramid—being at 30° north latitude—will come as close as 6.5° to and as far as 53.5° from the ecliptic plane (figure 6.6). Again we have to ask, what are the odds against such a finding, if what we see here does not in fact reflect any intent on behalf of the pyramid's architects to symbolize—through fairly obvious angular measures—the key orbital angles of the Great Pyramid at 30° north latitude?

Five Points

“You can get any number out of the pyramid by choosing random points.”

So said a skeptic in response to a public forum letter that included a brief introduction to this mystery, and we quote it here as a typical example of the knee-jerk reactions people often have when first confronted with this data.

With due respect, the individual concerned clearly didn’t understand the simplicity of what is being expressed here, because, as we can see, the four values with which we began and that we see illustrated in figure 6.6—30°, 23.5°, 6.5°, and 53.5°—are all easily found within the most basic geometry of the Great Pyramid, and all from connecting just three points (two pyramid vertices and apex) to the centers of the two internal chambers we have at our disposal when viewing the Great Pyramid in cross-section—just five points, five highly significant points (figure 6.14).

As stated, these angle values we have uncovered correlate with the geophysical picture of the tilted Earth as it relates to the rotation of the Great Pyramid at 30° from the equator and 6.5° from the ecliptic plane—again, 30° minus 6.5° equals 23.5°.

Looking at this another way, it is a fact that with the Great Pyramid at 30° north latitude, the daily cycle of its two distances from the ecliptic plane (6.5° and 53.5°) actually depends on the 23.5° obliquity of the polar axis. And it is precisely these values that we find in the angles between these five points and also in their sum total—53.5°.

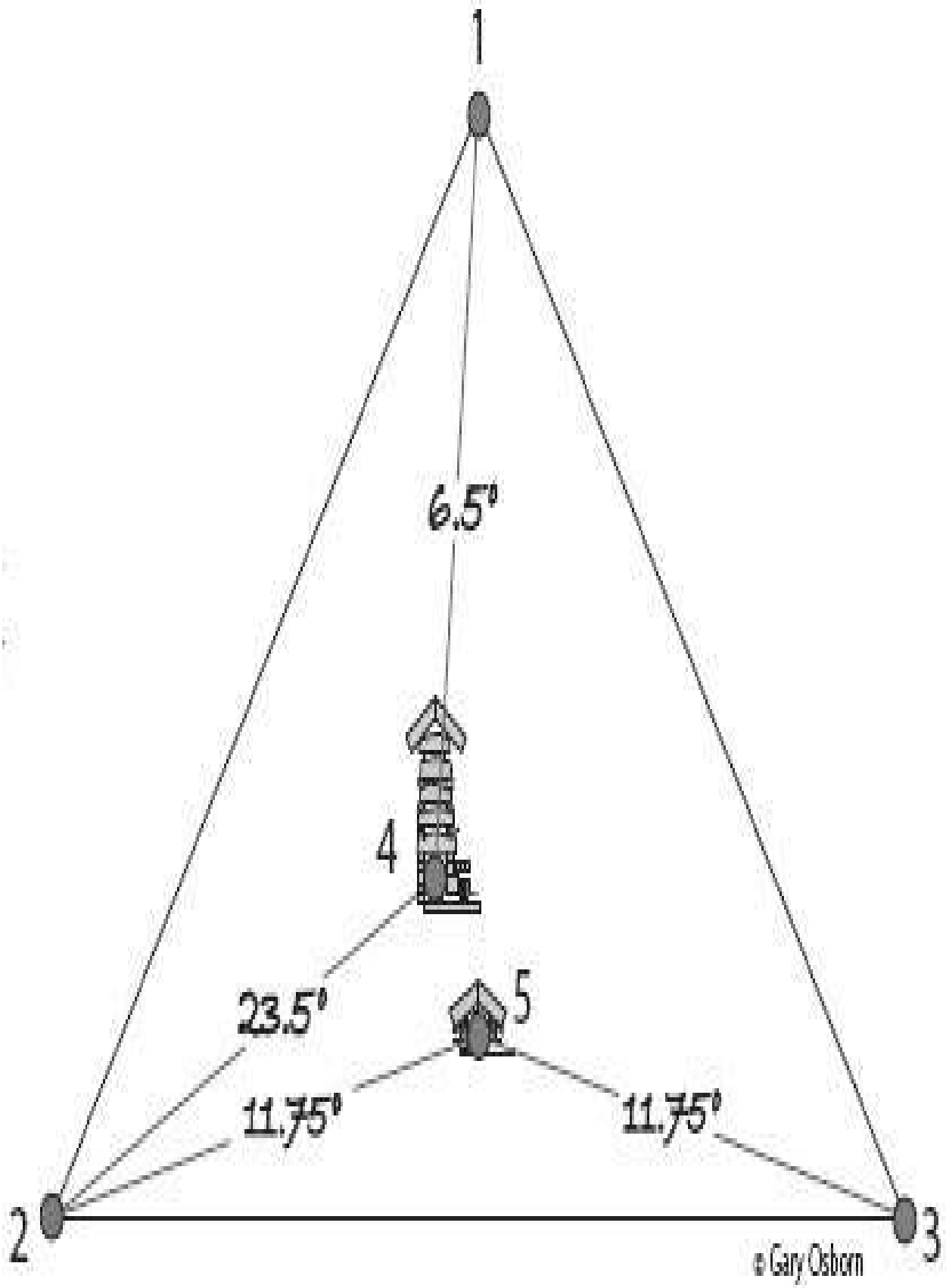

1
6.5'
4
23.5'
5
11.75'
11.75'
2
3
© Gary Osborn

Figure 6.14. The five significant points of the Great Pyramid

But there is more to this mystery—much more.

Angles and Course Levels

The next logical step would be to examine the angle between the two chambers. One might reasonably suspect that the angle here too would be 23.5°, perpendicular to the 23.5° angle that intersects the King's Chamber.

At first, one is disappointed to find that, like the slope angle of the Descending and Ascending Passages (including the Grand Gallery), the chambers are centered on an angle close to 26.5°—not 23.5°. However, the significance of this 26.5° angle will become clear in the next chapter.

In any case, it is interesting that a line from the center of the King's Chamber to the floor of the Queen's Chamber—intersecting the point where the floor and the central axis of the Great Pyramid meet—is indeed 23.5°. And the thing that is so appealing about this alignment is that the floor of the Queen's Chamber is level with course layer 23.5 of the Great Pyramid (figure 6.15).

The core masonry of the Great Pyramid is now exposed due to its outer Tura limestone casing having been removed centuries ago. The core masonry now consists of 203 steps or layers from the base to the truncated top of the pyramid. So, in effect, this 23.5° angle from the center of the King's Chamber intersects the floor of the Queen's Chamber at the centerline of the pyramid that is already marked up to the value of 23.5° by the course levels.

It would appear that the same number (23.5) of course layers have been laid from the base of the Great Pyramid to the floor of the Queen's Chamber! We can only consider that this correlation of the course layer value is a checksum of sorts—used by the ancient architects to allow verification of this angle-course

layer correlation and perhaps presented in this way to indicate that this value of 23.5 we keep finding is of some considerable significance—that we are to take note of it.

But surely this has to be a coincidence. Making sure there are 23.5 course levels from the pyramid's base to the point where this 23.5° angle intersects the center of the pyramid (as if to reaffirm the intent of this angle) would indicate that the architects of this grand design used the 360° system—the very system we use today. Even if we were to accept this, one could reasonably ask, why go to all this trouble? Why not simply center the two chambers on an angle of 23.5° if this was the original intention?

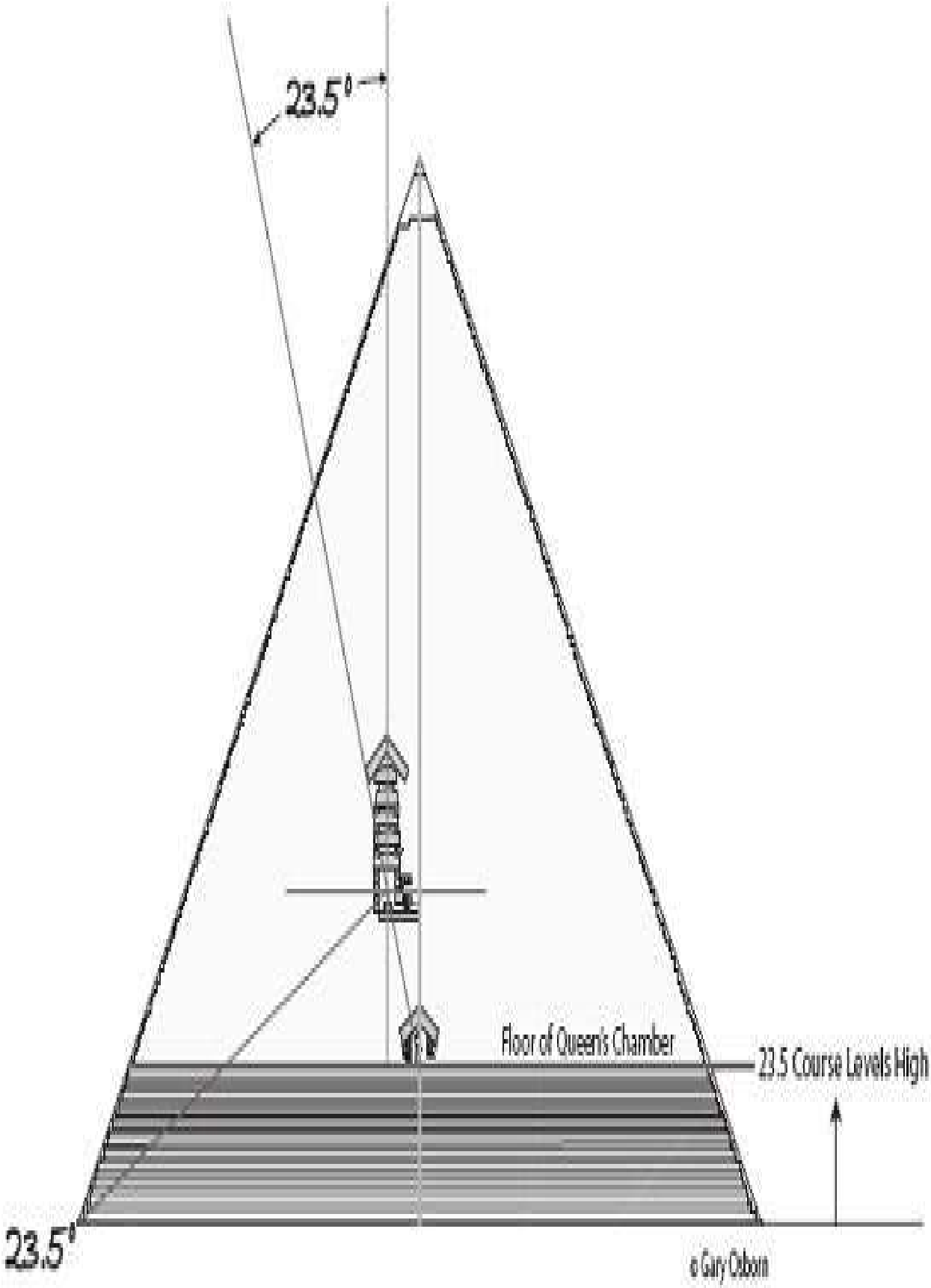

23.5°
Floor of Queen's Chamber
23.5 Course Levels High
23.5°
© Gary Osborn

Figure 6.15. The perpendicular angle of 23.5° that runs through the center of the King's Chamber and the point where the center line of the Great Pyramid intersects the floor of the Queen's Chamber, the floor being level with course layer 23.5 of the Great Pyramid.

The simple answer is that for the architects this was impossible, given the 51.84° angle of the sides, which appears to have been vital to the overall design. If the architects had already determined the positions of both chambers via the 23.5° and 6.5° angles to the center of the King's Chamber and the two 11.75° angles that are half the 23.5° value for the Queen's Chamber, it would have been impossible to align the centers of both these chambers on a perpendicular 23.5° angle. The only way this would be possible would be if the angles of the sides were 48.42°—a difference of 3.5°. This means that the side angles of 51-plus degrees (and the complimentary angle of the Queen's Chamber shafts at around 39°) were, for some reason, of paramount importance.

So, perhaps to show that this alignment would have been ideal in practice and was originally intended (for reasons that will soon be made clear), the next best thing was to make sure that the intersection point of both the midplane of the Great Pyramid and the floor of the Queen's Chamber were connected to the center of the King's Chamber by an angle of 23.5°, and as an afterthought, it was decided that the number of course layers from the base to the floor of the Queen's Chamber would both reflect and confirm the value of this intended angle.

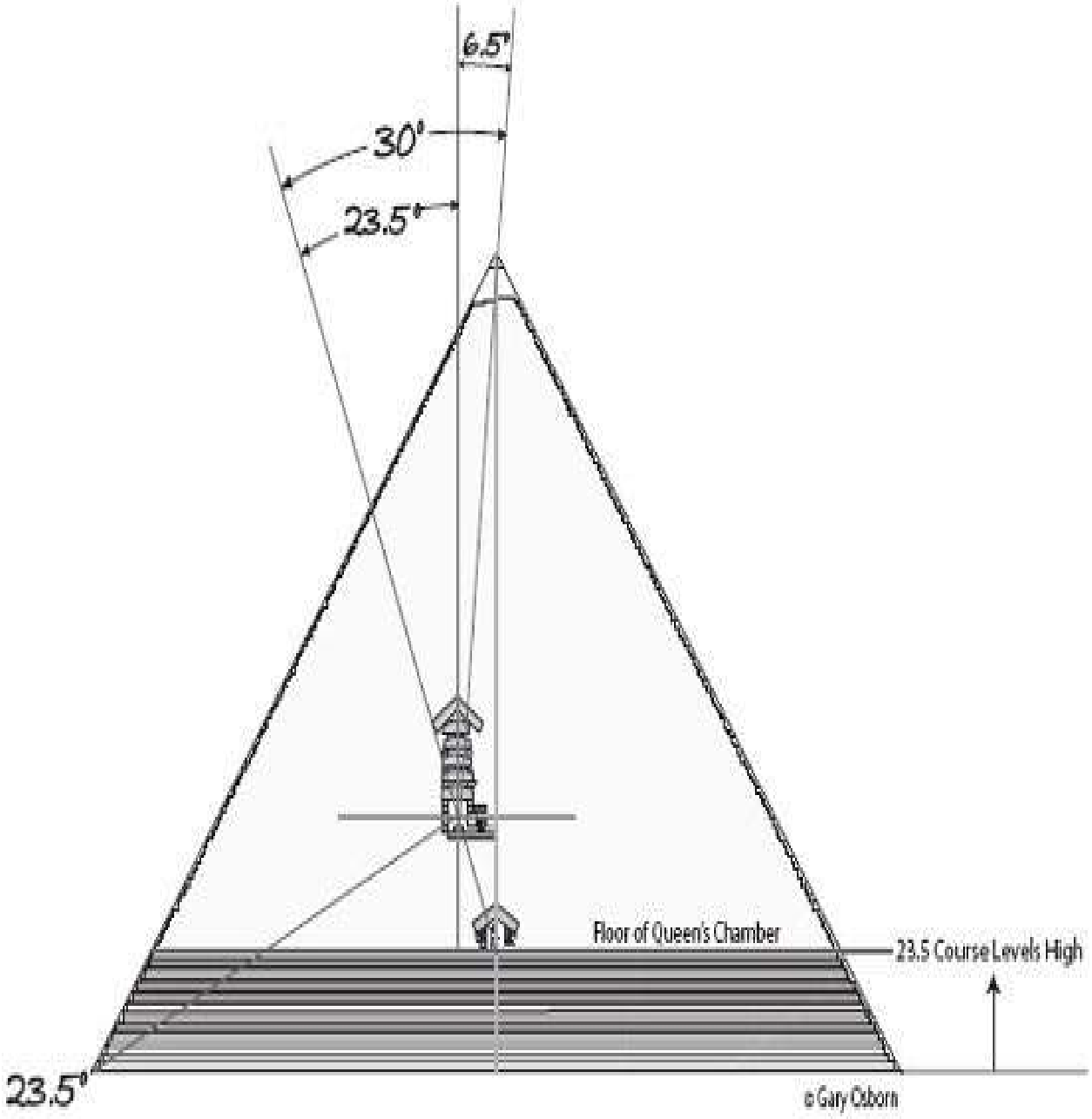
This could be argued, of course, but this is our explanation as to how the architects may have gotten around the problem of not being able to center both chambers on a 23.5° angle in addition to the other alignments they had already made, on which the overall geometry of the Great Pyramid seems to have depended.

If we now extend the lines of the cross on which the King's Chamber is centered to emphasize the 6.5° offset of the King's Chamber from the Great Pyramid apex, we note that the perpendicular 23.5° angle and the 6.5° angle together present us with the 30° angle—signifying the latitude distance of the Great Pyramid from the equator or equatorial plane.

Of course, the value 30° has always been there, as it is simply the sum value of the two angles that connect the apex and the south vertex to the center of the King's Chamber (6.5° + 23.5° = 30°). The reader may have been wondering about the angle between the north vertex and the center of the King's Chamber and what value this angle might be. We can now reveal that this angle is 20°.

It appears that the number of course layers (stepped stone layers) from the base of the Great Pyramid to the floors of the chambers actually reflects the degree values of these angles (when added together), as revealed briefly in figures 6.15 and 6.16, and, as we will see, the addition of this particular angle (20°) presents further evidence for this:

South vertex to center of King's Chamber	23.5°
Apex to center of King's Chamber	6.5°
North vertex to center of King's Chamber	20°
Sum total	50°



What is truly remarkable about these angle values is that the sum total of the key angles of the King's Chamber (50°) is equivalent to the course level on which the floor of the King's Chamber sits—the 50th course layer of the Great Pyramid. Some might consider this merely a coincidence on top of all the others, but let us now check the values presented by the Queen's Chamber:

South vertex to center of Queen's Chamber	11.75°
Apex to center of Queen's Chamber	0°
North vertex to center of Queen's Chamber	11.75°
Sum total	23.5°

So, as noted earlier, we find the floor of the Queen's Chamber is level with course layer 23.5 of the Great Pyramid (figure 6.17).

Once again, we must ask ourselves, what is it about these particular angles that the ancient architects are trying to convey to us?

It has been established that the floor of the King's Chamber is level with the 50th course layer. One will find this to be a given fact in numerous sources.

It is also said that the floor of the Queen's Chamber is level with the 25th course layer but how true is this?

According to the measurements given by Petrie, we've compiled the following measurements:

Course (level) layer 23 begins at 820.3 inches from the base of the Great Pyramid.

The floor of the Queen's Chamber is 834.4 inches above the base.

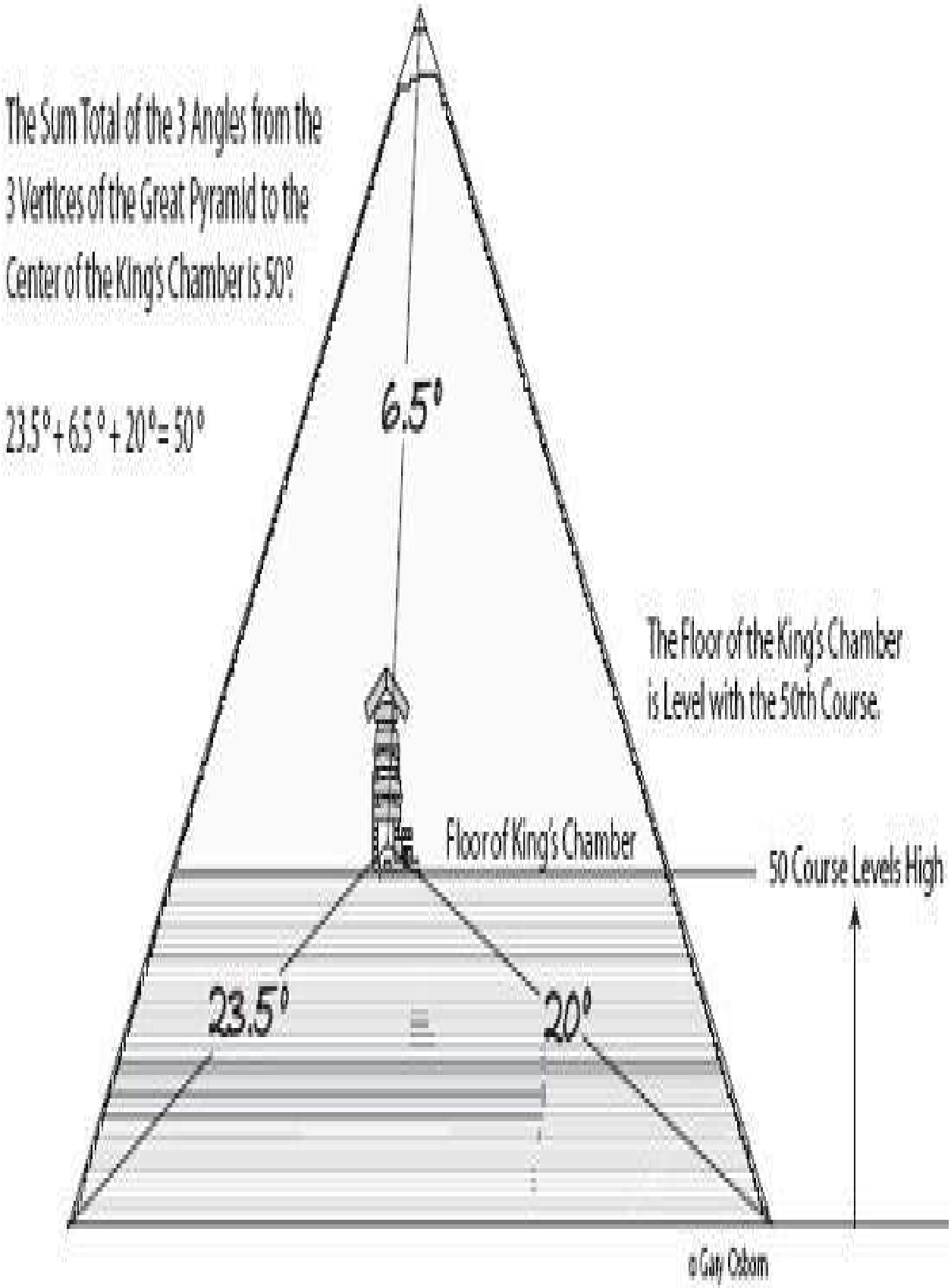
Course layer 24 begins at 852.7 inches above the base.

Course layer 25 actually begins at 885.0 inches above the base.

Course layer 50 begins at 1697.6 inches above the base.

The floor of the King's Chamber is 1691.4 to 1693.7 inches from the base.[7]

So then, these findings are substantiated by the above calculated measurements presented by Petrie. The floor of the Queen's Chamber falls halfway between the 23rd and 24th course levels by a mean difference of only 5 inches.


The Sum Total of the 3 Angles from the 3 Vertices of the Great Pyramid to the Center of the King's Chamber Is 50°.
23.5° + 6.5° + 20° = 50°
6.5°
The Floor of the King's Chamber is Level with the 50th Course.
Floor of King's Chamber
50 Course Levels High
23.5°
20°
© Gary Osborn

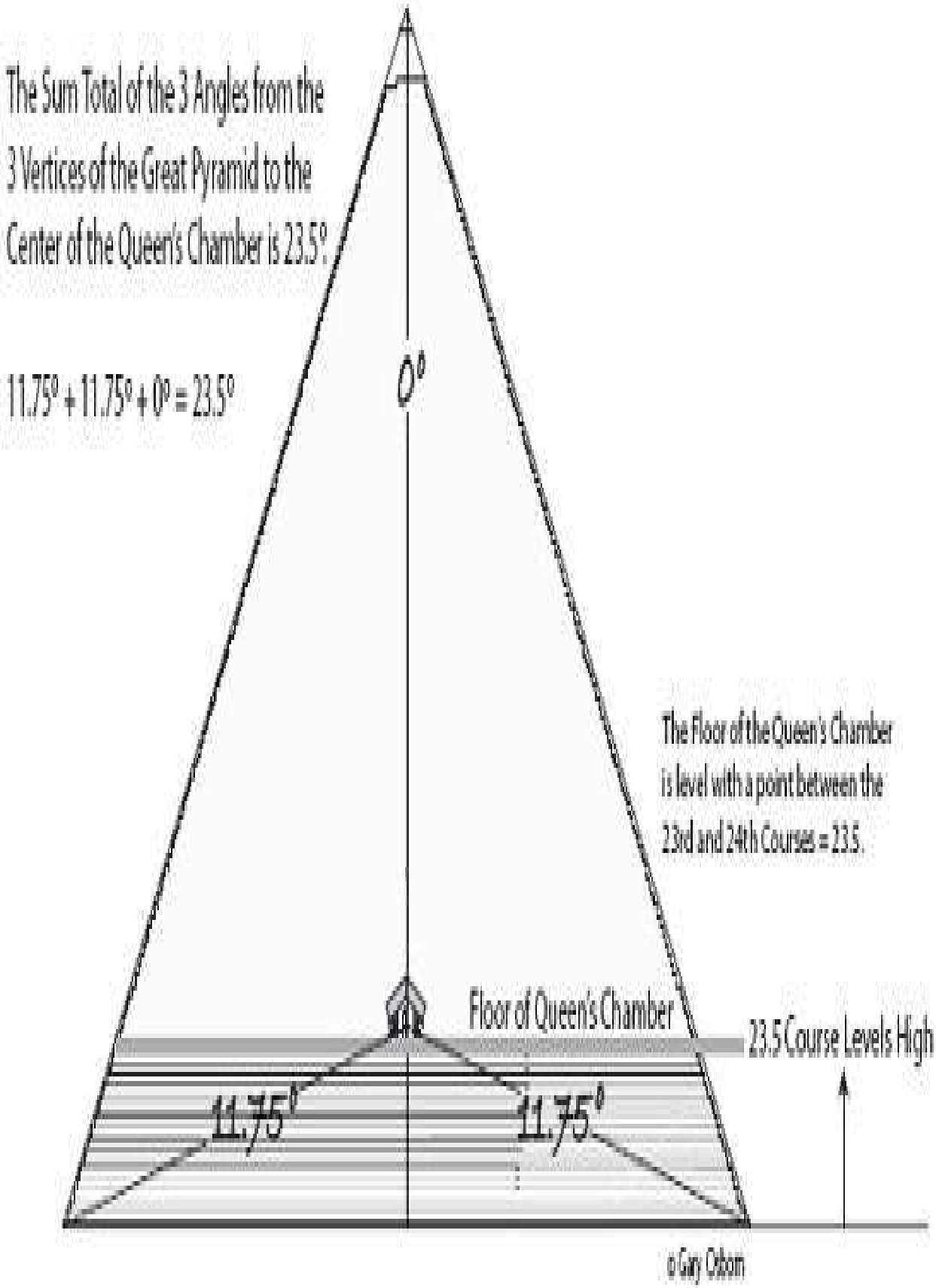

The Sum Total of the 3 Angles from the
3 Vertices of the Great Pyramid to the
Center of the Queen's Chamber is 23.5°.
11.75° + 11.75° + 0° = 23.5°
0°
The Floor of the Queen's Chamber
is level with a point between the
23rd and 24th Courses = 23.5.
Floor of Queen's Chamber
23.5 Course Levels High
11.75°
11.75°
© Gary Osborn

Figure 6.17. The degree values of the chamber angles are reflected in the number of course layers.

The view that the floor of the Queen's Chamber is level with the 25th course layer is inaccurate based on the observation that the floor of the Queen's Chamber is exactly half the distance between the base of the Great Pyramid and the floor of the King's Chamber.

In fact, the stepped course levels or course layers are not consistent in height: some layers are thin—sometimes half the height of the average-size layers—meaning that although the floor of the Queen's Chamber is equidistant between the base of the Great Pyramid and the floor of the King's Chamber, there are more course layers between the floor of the Queen's Chamber and the King's Chamber than between the base of the Great Pyramid and the floor of the Queen's Chamber.

In other words, if there are 23.5 course layers from the base of the pyramid to the floor of the Queen's Chamber and 50 course layers to the floor of the King's Chamber, then this means there are 26.5 course layers from the floor of the Queen's Chamber to the floor of the King's Chamber, again, making 50 course layers in total.

Note that this leaves 26.5 course levels between the floors of the Queen's Chamber and the King's Chamber: 50 minus 23.5 equals 26.5.

Remarkably, this value is also reflected in the 26.5° angle between the King's and Queen's Chambers, giving us a total of 33° between the 6.5° angle of apex and the 26.5° diagonal on which these two chambers are centered. The

significance of 33° in Freemasonry hasn’t gone unnoticed.

We find that 26.5° is also the angle of both the Descending and Ascending passages (including the Grand Gallery) of the Great Pyramid—26.3°, to be exact, and is also the precise angle between the centers of the King’s Chamber and the Queen’s Chamber, as shown in figure 6.18.

From the King’s Chamber to the center of the floor of the Queen’s Chamber and on the centerline of the pyramid, the angle is 23.5°, and there are exactly 23.5 course levels to the floor of the Queen’s Chamber from the pyramid base.

From the center of the King’s Chamber to the center of the Queen’s Chamber, the angle is 26.5°, and as this angle connects both chambers, we find there are exactly 26.5 course levels between the two chambers. The sum total of the three angles of the King’s Chamber (in cross-section) is 50°, which corresponds to the checksum course layer 50, on which this chamber sits.

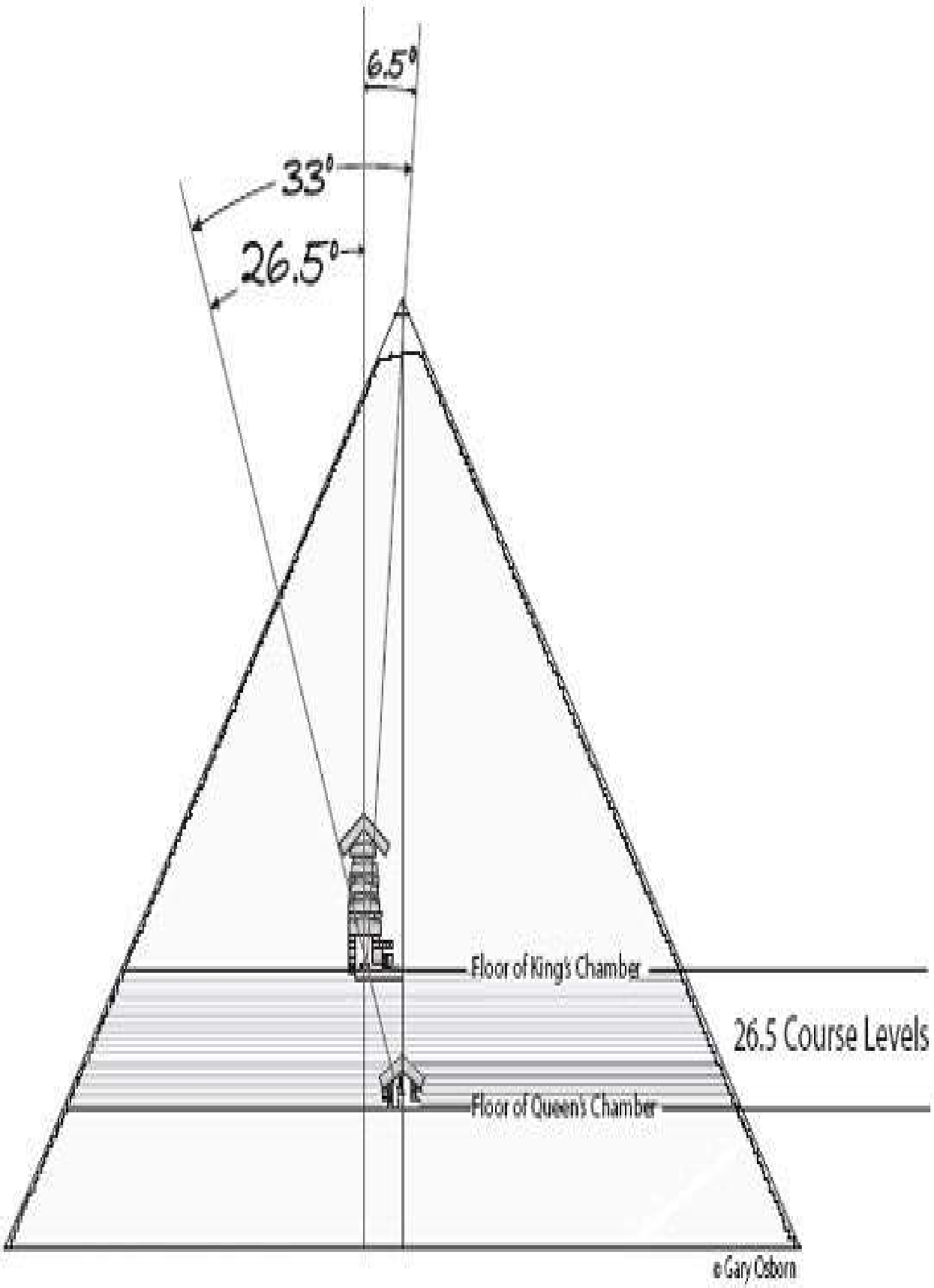

6.5°
33°
26.5°
Floor of King's Chamber
26.5 Course Levels
Floor of Queen's Chamber
© Gary Osborn

Figure 6.18. The centers of both the King's and Queen's chambers are positioned on an angle of 26.5°, and there are 26.5 course levels between both chambers.

Time and time again we see degree angles being expressed and then seemingly totaled with a checksum value that reflects the sum total of the chamber angles. While we do not consider this to be incontrovertible evidence of the use of the 360° system of angular measure in ancient times, we do, however, have to say that we consider it way beyond the realm of possibility that such an outcome could arise as the result of mere coincidence. This all seems to have been very carefully planned and brilliantly executed. And what's more, we will find other examples of angles being expressed and then verified with a corresponding checksum value in the pyramid course layers. More on this shortly.

It appears, then, that the 23.5° angle would seem to be for positioning, in that it supports the perpendicular 23.5° angle from the south vertex to the center of the King's Chamber, thus completing the present geophysical picture of our planet as a frame of reference on which further information has been grafted and from which it can be extracted.

The 26.5° angle appears confusing, but because of its rate of recurrence within the angle geometry of the key features of the Great Pyramid, we feel certain that this value may also play an important part in this code—an idea we will consider later.

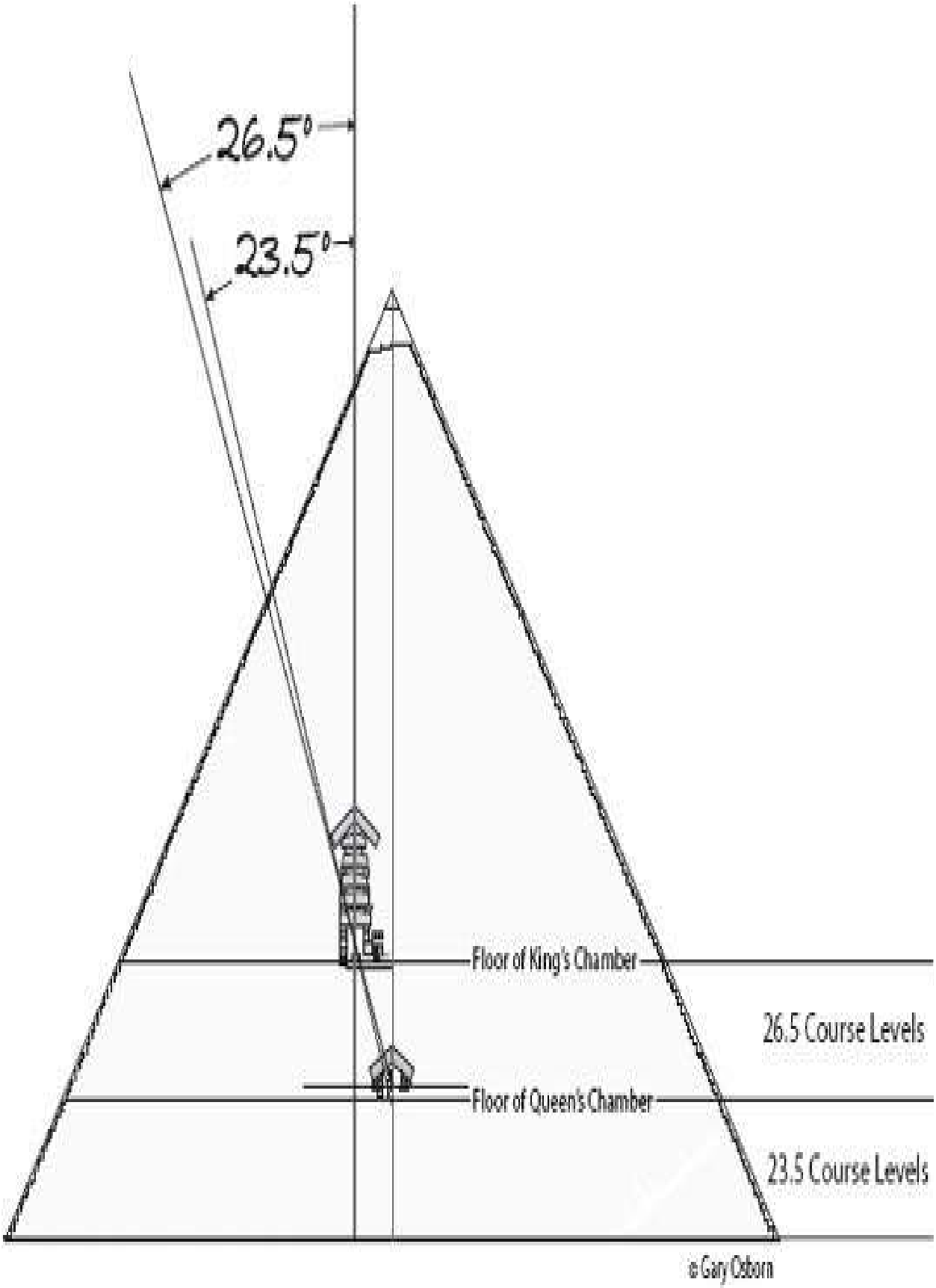

26.5°
23.5°
Floor of King's Chamber
26.5 Course Levels
Floor of Queen's Chamber
23.5 Course Levels
© Gary Osborn

Figure 6.19. The 26.5° and 23.5° angles associated with the two chambers, which are also reflected in the number of course levels to and between each: 23.5° + 26.5° = 50°

But should there be any doubt that the architects of this design used our modern 360° angular measuring system, we also find that the angle between the two shafts of the upper King's Chamber is just a little over 102°. Given what we have seen with the floors of the King's and Queen's Chambers, their course layers, checksums, and the associated angles within those chambers, should it be any surprise to learn that we find these two shafts of the King's Chamber exit the sides of the Great Pyramid at course layer 102?

As stated, that the course layer values match the sums of the angles within the two chambers is perhaps but a means—a mechanism—to draw our attention to some significance of these particular angles, to tell us that we are to analyze them and try to figure out what it is the ancients were trying to convey to us about them.

Time and time again, we find the angular measurements of key features within the Great Pyramid equaling their corresponding course layer value of the structure. To find this correlation occurring just once with key features in the Great Pyramid would be curious indeed, but to find it occurring no less than four times in key features, we feel, smacks of an intentional use of the 360° system of angular measure, a system of which we are told the ancient Egyptians apparently had no knowledge. And it is probably worth reminding ourselves here of the words of Thirty-Second-Degree Freemason and author Frank C. Higgins, who indicates in his book Ancient Freemasonry that these angles of 23.5°, 11.75°, and 51.5° (or 52°, which is often used as a rounded-up figure) that we find so readily within the Great Pyramid are the very same key angles used in the Masonic keystone (figure 1.1) and that they have, apparently since the most ancient times, been connected in some way with Earth's polar axis.

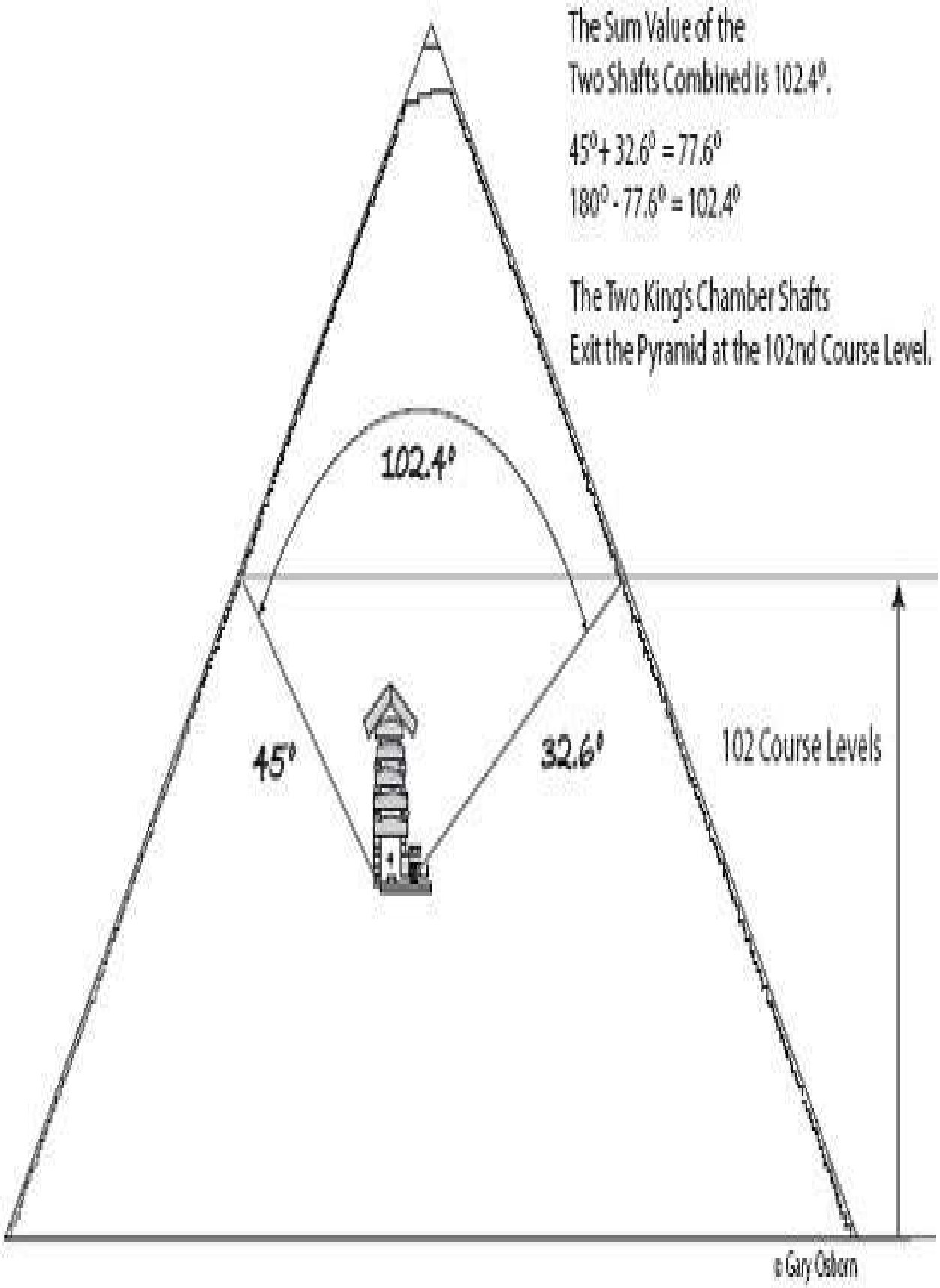

The Sum Value of the
Two Shafts Combined Is 102.4°.
45° + 32.6° = 77.6°
180° - 77.6° = 102.4°
The Two King's Chamber Shafts
Exit the Pyramid at the 102nd Course Level.
102.4°
45°
32.6°
102 Course Levels
© Gary Osborn

Figure 6.20. Further evidence that the number of course layers reflects the degree values of the angles found within the Great Pyramid.

And so, once again, we are presented here with compelling evidence of another hand in the construction of these great monuments, a sophisticated scientific hand that practiced circular measurement with the use of the very same 360° system that we use today, a system that mainstream Egyptology insists was completely unknown to the ancient Egyptians. From our investigation here, however, it does seem fairly clear to us that someone in ancient times—perhaps now lost to the history books—knew of and employed this system of degrees in the design and construction of the Great Pyramid. The work of an invisible college, perhaps, whose members secretly passed on its sacred science down the ages?

Chapter 6 Summary

When the Great Pyramid is viewed in an east-west cross-section, we find that geophysical and geodetic information relating to the orbital dynamics of the Great Pyramid (being at latitude 30° north) can easily be extrapolated from the five angles plotted between only five major points—being the apex, the two base vertices, and the centers of the two internal chambers.

These angles present us with the present axis obliquity value of around 23.5°, along with two other values (20° and 6.5°).

The geodetic information pertaining to the Great Pyramid's own location on Earth—being 30° from the equator and 6.5° from the ecliptic plane—is the key to understanding the geophysical axial-shift-cycle data.

Taken together, these same angles present us with the precessional diameter of 47° and in total give us the other extreme position of the Great Pyramid from the ecliptic plane—53.5°.

Furthermore, as if to confirm or corroborate these angle data, these geodetic and/or geophysical-related degree values are reflected in the number of course levels (like a checksum value) from the base of the pyramid to the floors of the King's and Queen's Chambers and also from the floor of the Queen's Chamber to the floor of the King's Chamber. This seems to indicate the use of the 360° system of angular measure and is further strengthened with the angle of the upper shafts at 102° exiting the Great Pyramid at course layer 102.

The findings presented in this chapter are substantiated by the statements published by Higgins in 1919 that the geophysical-axis-related “cosmic angles” of 11.75°, 23.5°, and 47° were encoded in the geometry of ancient temples and many ancient artifacts found around the world. (See chapter 1.) In the same paragraph, Higgins also cites the Great Pyramid as one of these temples, so it could be said that in turn our own findings relating to the Great Pyramid have confirmed Higgins’s findings and observations.

7

THROUGH THE VEIL

As stated in the previous chapter and shown in figure 6.14, by using only five significant points of the Great Pyramid in an east-west cross-section—also taking the Great Pyramid's location on Earth into account—we can extract simple factual data about Earth's geophysics and orbital dynamics.

As this information stands and because it speaks for itself, the simple fact is, we really do not have to justify or support it with further evidence, because despite everyone's views and beliefs and no matter how we may personally feel or how we might respond to it, the angles are there and they interrelate in such a simple way—albeit in triangular form—that we are presented with what seems to be a geophysical picture of Earth with its present obliquity of 23.5° with respect to the ecliptic plane.

What is interesting is that these data may also be geodetic, in that the key to the geophysical data is both given and supplemented by the actual location of the Great Pyramid on Earth and with respect to both the equatorial and ecliptic planes and its two positions of 6.5° and 53.5° from the ecliptic plane—each separated by twelve hours, as Earth rotates on its axis every twenty-four hours.

We have all heard the question, Can you show me a diagram? Well, here's one the architects of this scheme left us—written in stone and in a monument that, it was hoped, would last for all time.

A Picture Paints a Thousand Words

Here’s how to view this hidden picture:

1. Take a scale drawing of the Great Pyramid in an east-west cross-section, showing only the King’s and Queen’s Chambers for clarity, as everything else is superfluous in the picture we are about to see. Again, we need only the five significant points of the pyramid.

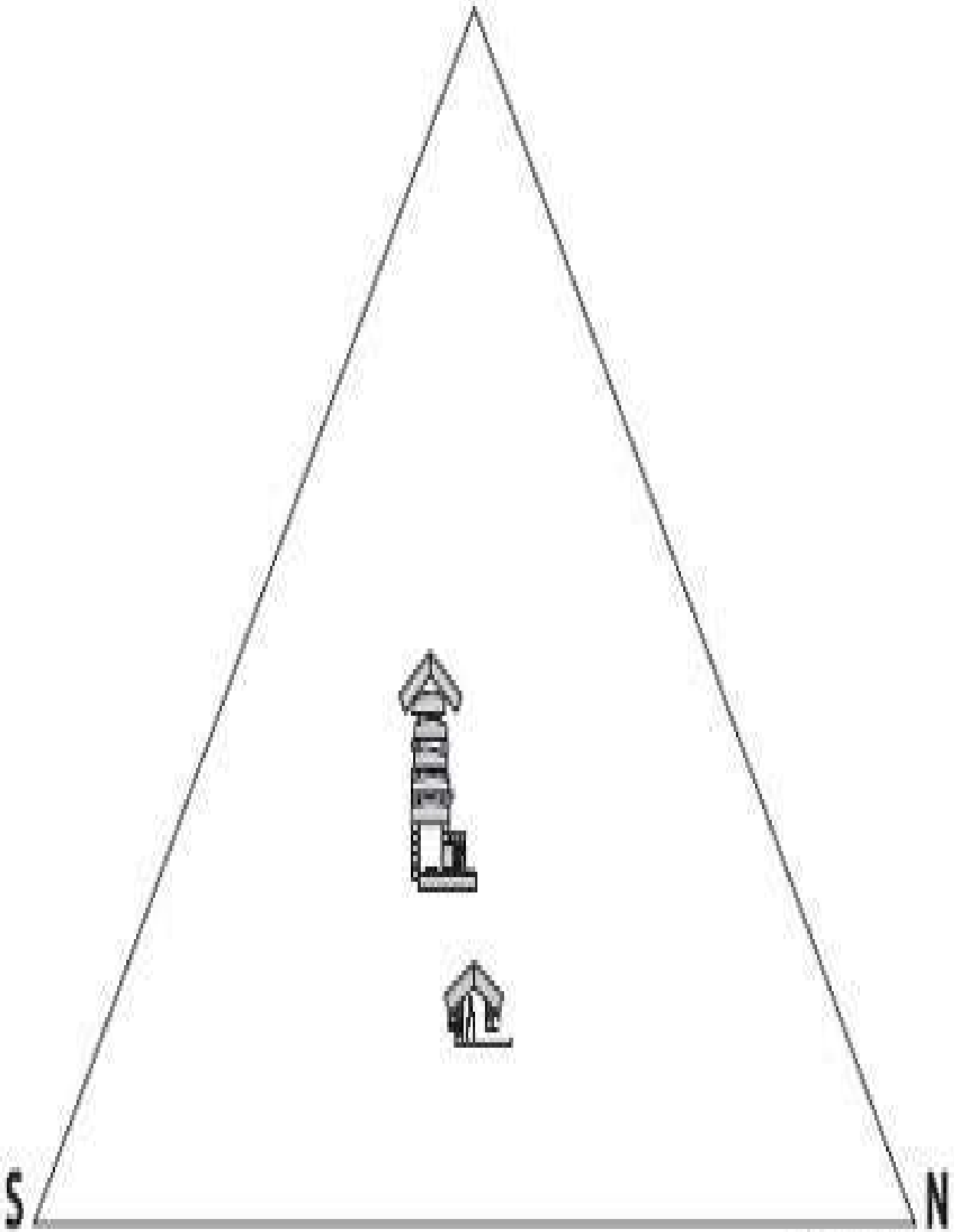


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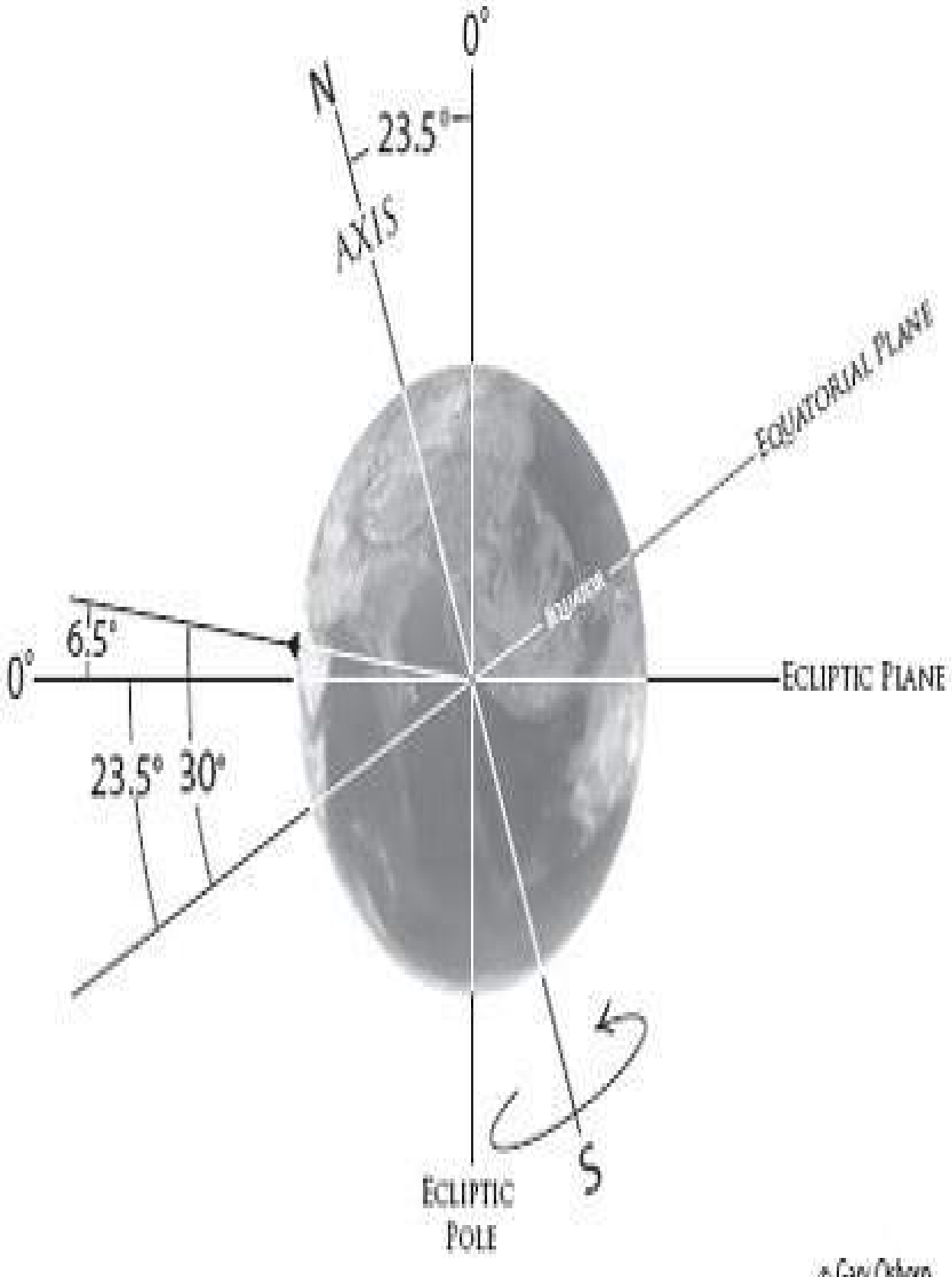
Figure 7.1. The Great Pyramid in an east-west cross-section, showing both the King's Chamber (above) and the Queen's Chamber (to scale)

2. Take a typical textbook diagram of the tilted Earth, making sure the location of the Great Pyramid is included—being 30° from the equator and 6.5° from the ecliptic plane.


0°
N
23.5°
AXIS
EQUATORIAL PLANE
EQUATOR
0°
6.5°
ECLIPTIC PLANE
23.5°
30°
S
ECLIPTIC
POLE

© Gary Osborn

Figure 7.2. Earth at 23.5° obliquity, showing the location of the Great Pyramid

3. Rotate the drawing of the Great Pyramid 90° to the left so that north and south are aligned vertically, thereby matching the north-south orientation of the ecliptic plane in our diagram of Earth.

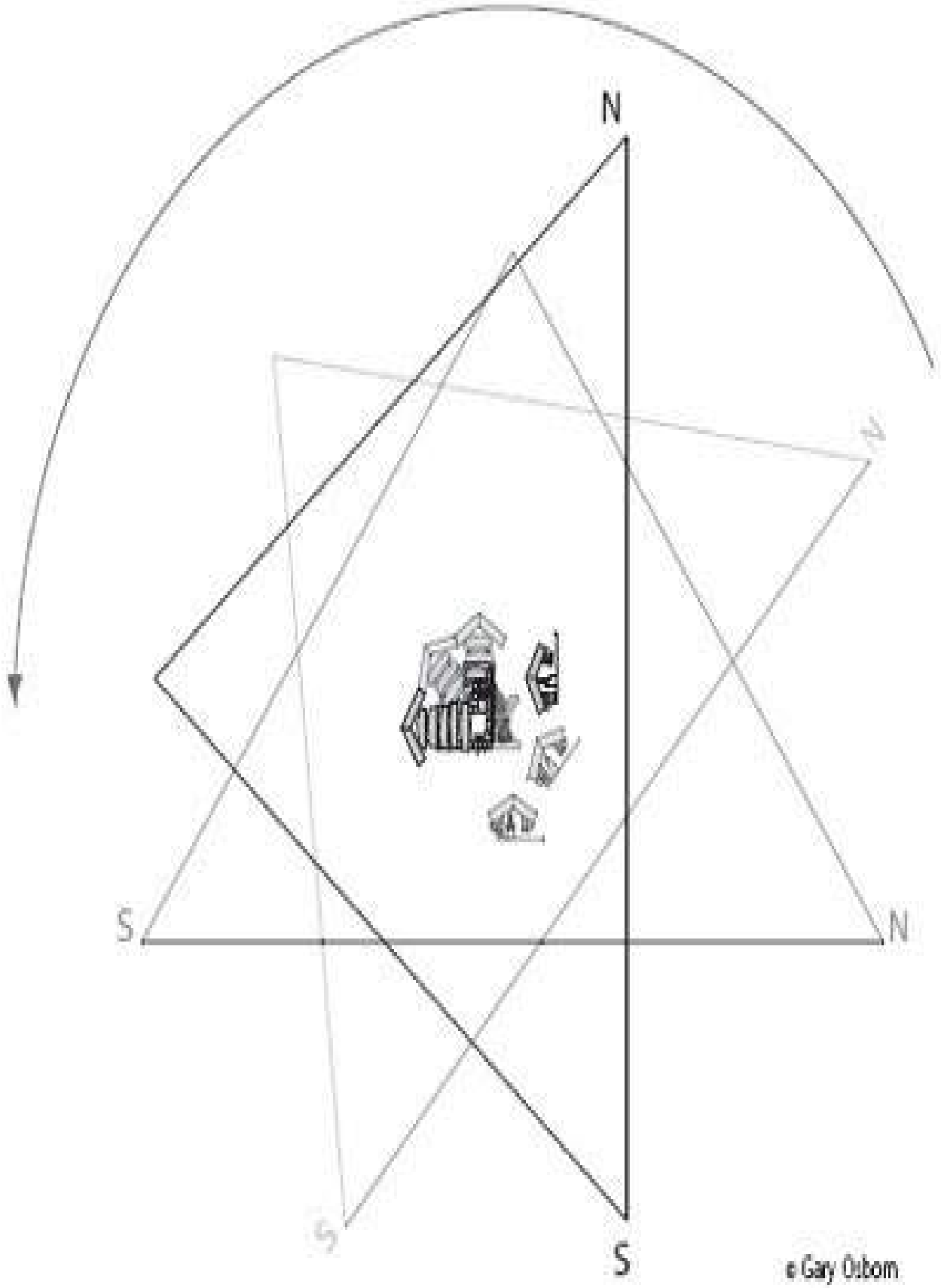


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Figure 7.3. Turning the diagram of the Great Pyramid 90° to the left

4. Then scale the drawing of the Great Pyramid so that both drawings can be superimposed to fit.

The size is gauged by making sure that the apex of the Great Pyramid aligns with the Great Pyramid on Earth, and the King's Chamber aligns with Earth's core-center. (In this demonstration, we scale down our diagram of the Great Pyramid to fit Earth.)

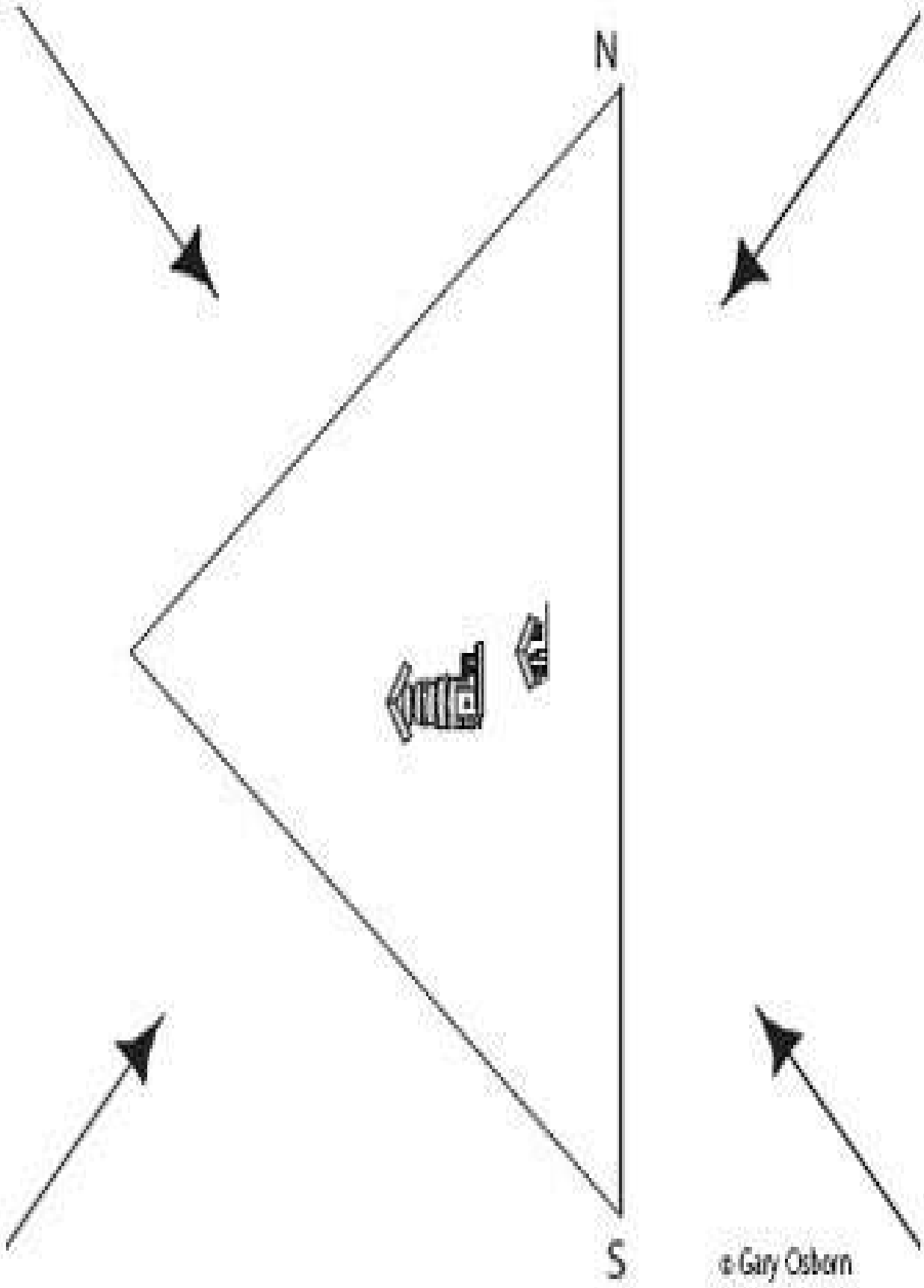

N
S
© Gary Osborn

Figure 7.4. Downscaling the Great Pyramid to fit diagram of Earth

5. When we superimpose our diagram of the Great Pyramid (complete with the angles we have already established) over the diagram of the tilted Earth, we find that everything aligns perfectly—the correct north-south orientation of the Great Pyramid and the angles between its five points also being an important factor or dynamic. We find that Earth's polar axis runs from the south vertex of the Great Pyramid to and through the center of the King's Chamber.

In the previous chapter, we mentioned that there is a good reason why this perpendicular angle of 23.5° connecting both chambers would have to be present within these alignments: because this particular angle would represent the equator or equatorial plane, as we can now see.

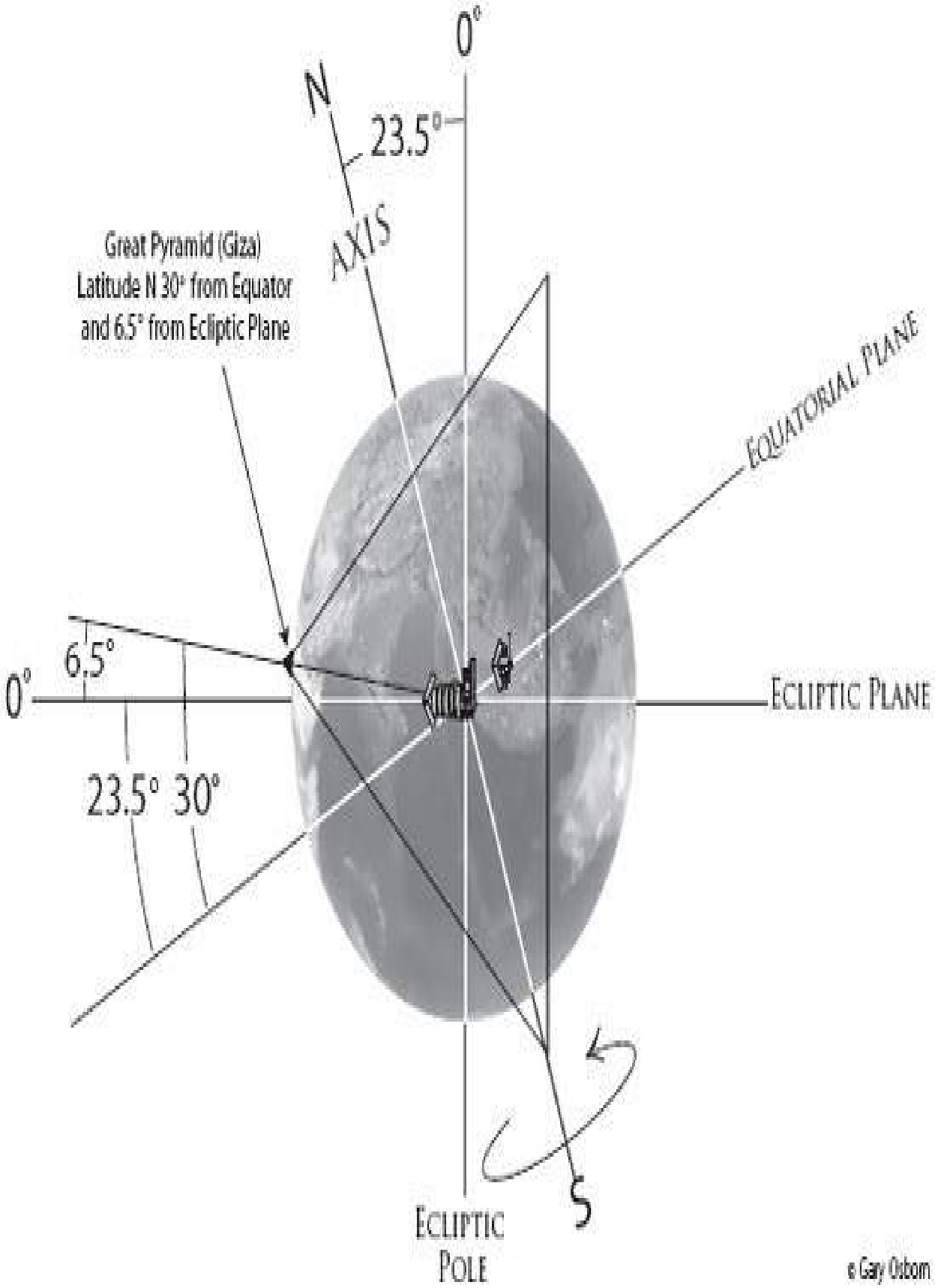

0°
N
23.5°
AXIS
Great Pyramid (Giza)
Latitude N 30° from Equator
and 6.5° from Ecliptic Plane
EQUATORIAL PLANE
0°
6.5°
ECLIPTIC PLANE
23.5°
30°
S
ECLIPTIC
POLE
© Gary Osborn

Figure 7.5. The Great Pyramid superimposed over Earth, revealing the geodetic information hiding in plain sight within the geometry of the Great Pyramid

Most interesting of all, we find that the Great Pyramid is pointing to its own location—the key geodetic alignment that presents us with a geophysical picture of our planet.

The 23.5° angle that runs from the south vertex of the Great Pyramid and through the center of the King's Chamber represents Earth's celestial or polar axis. We find that the extended lines on which the King's Chamber is centered represent the squared ecliptic plane and the ecliptic pole. Again, Earth is tilted 23.5° with respect to the ecliptic plane and pole. Everything centers on the King's Chamber, which means that symbolically, the King's Chamber may represent the core-center of Earth.

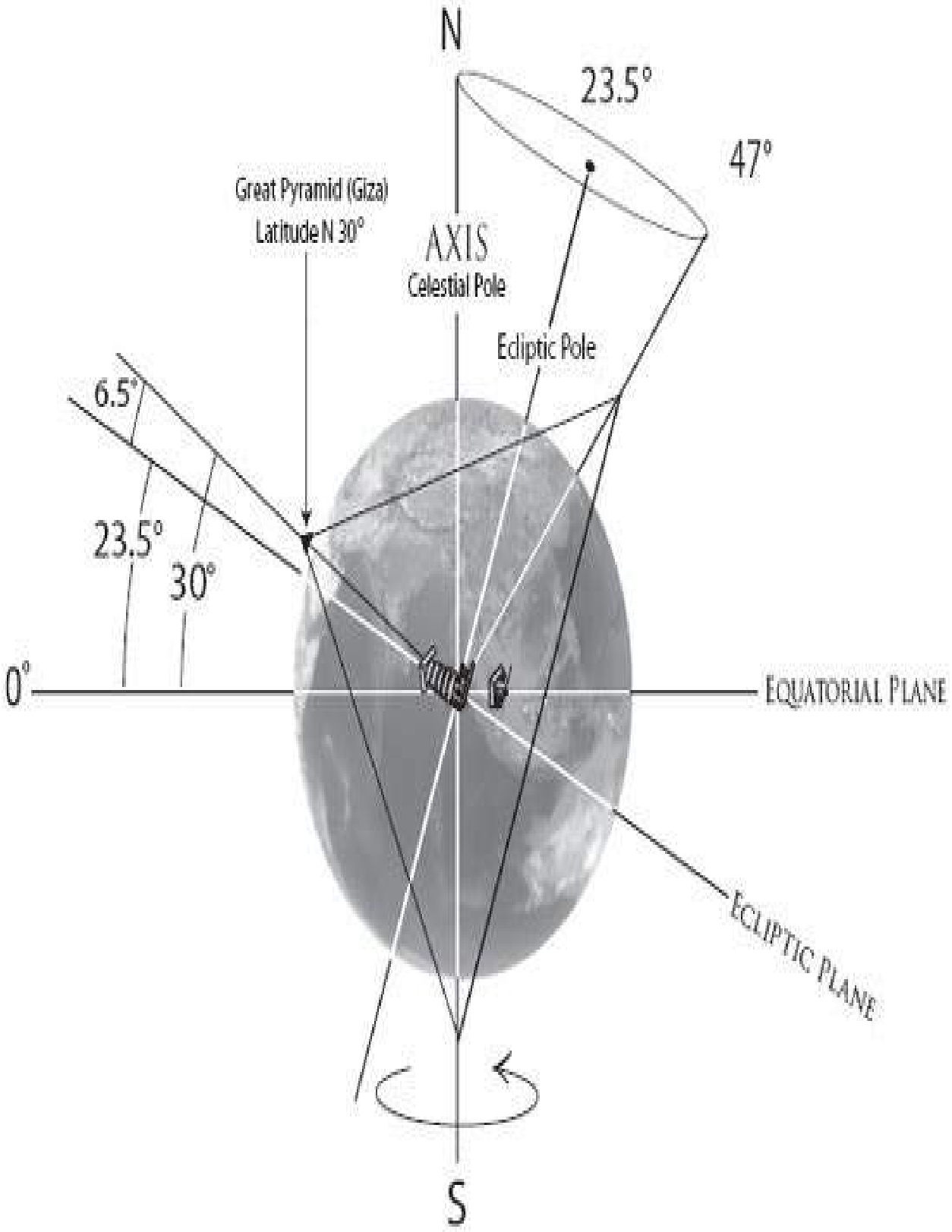
As stated, however, one of the most intriguing features in all this is that the Great Pyramid ends up actually pointing to its own location on Earth via its apex. The apex, which would represent the missing capstone, seems almost to be like a miniature model of the Great Pyramid in the superimposed diagram in figure 7.5—poking out of Earth where the Great Pyramid is located—again, being 30° north of the equator and coming as close as 6.5° to the ecliptic plane.

The Precession Diameter

We find yet more information when we position Earth so that the polar axis is upright (figure 7.6 on page 208). In this position, the angle from the center of the King's Chamber to the north vertex is between 46.5° and 47°. This is so close to the diameter of the circle traced in the sky by the axis over the course of some 25,920 years due to precession that it's difficult to put aside as being a mere coincidence.

Again, the diameter of the precessional circle is 47°—twice the angle of 23.5°.

After everything else we have seen, this is an alignment that could only be expected, as it completes the present geophysical picture of Earth and its orbital dynamics. These angles, by which just five features or points are connected within the east-west cross-section drawing of the Great Pyramid, produce, we feel, a simple and clever design conceptualized at the initial blueprint and/or planning phase of its construction.


N
23.5°
47°
Great Pyramid (Giza)
Latitude N 30°
AXIS
Celestial Pole
Ecliptic Pole
6.5°
23.5°
30°
0°
EQUATORIAL PLANE
ECLIPTIC PLANE
S

©Gary Osborn

Figure 7.6. The axis positioned upright, presenting an angle of 47° from the center of the King's Chamber to the north vertex, revealing the cone or cycle of precession

The angles to and from these five points provide meaning—a geophysical-geodetic connection in relation to the location of the Great Pyramid—and from the alignments they produce, we can unearth all manner of geophysical information. After all, building a huge sphere to express the same geophysical information would have been impossible, but to express the same information mathematically in the form of angles, the abstract pyramid structure with its angle geometry is the ideal vehicle.

North and South Vertex Alignments

When first superimposing the Great Pyramid over a diagram of Earth in the way we have demonstrated, we note that the north and south vertices of the pyramid protrude outward from the arc of Earth like fish fins. Although everything else lines up nicely with everything centered on the King's Chamber—aligned as it is with the center of Earth—these extended vertices do not give an aesthetically pleasing picture.

Visually we humans prefer everything to be in balance and in proportion. So for this to be viewed as having been worked to a premeditated plan, the resulting picture would likely have been symmetrical. One would imagine a chamber, smack-bang at the center of the pyramid, with all three points of the triangle (pyramid) touching the arc of Earth. However, to communicate the amount of information we have discovered, this symmetrical alignment wouldn't have worked because it seems that several key angles needed to be incorporated into this one picture.

What is intriguing about this superimposed Great Pyramid/Earth picture (figure 7.7) is that the oddly uneven and extended vertices seem also to serve a purpose. The points where the sides of the north and south vertices actually touch the 360° arc of Earth, once again, present us with the very same geodetic angle values with which we have already become familiar and thereby seem to act as some sort of corroborating mechanism. But they may also present us with some additional information. For example, the point where the north face of the pyramid touches the arc of Earth is again 6.5°.

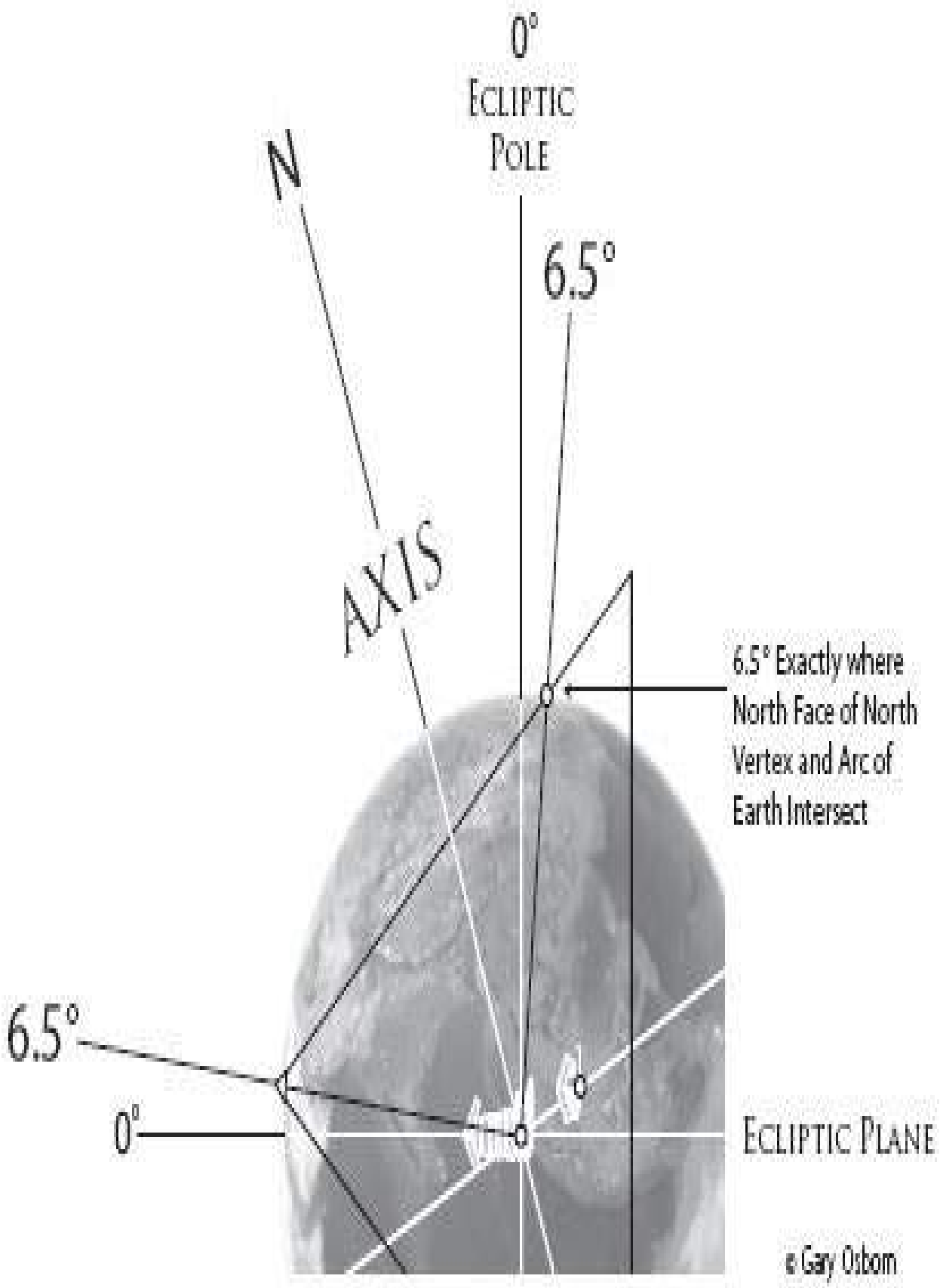

0°
Ecliptic
Pole
N
6.5°
AXIS
6.5° Exactly where
North Face of North
Vertex and Arc of
Earth Intersect
6.5°
0°
Ecliptic Plane
© Gary Osborn

Figure 7.7. The 6.5° alignment—north face of north vertex and arc of Earth

The point where the base of the pyramid at the north vertex touches the arc of Earth is 26.5°, which also happens to be the angle of the Ascending and Descending Passages and the true value of the angle on which the King's and Queen's Chambers are centered, as indicated earlier in this book.

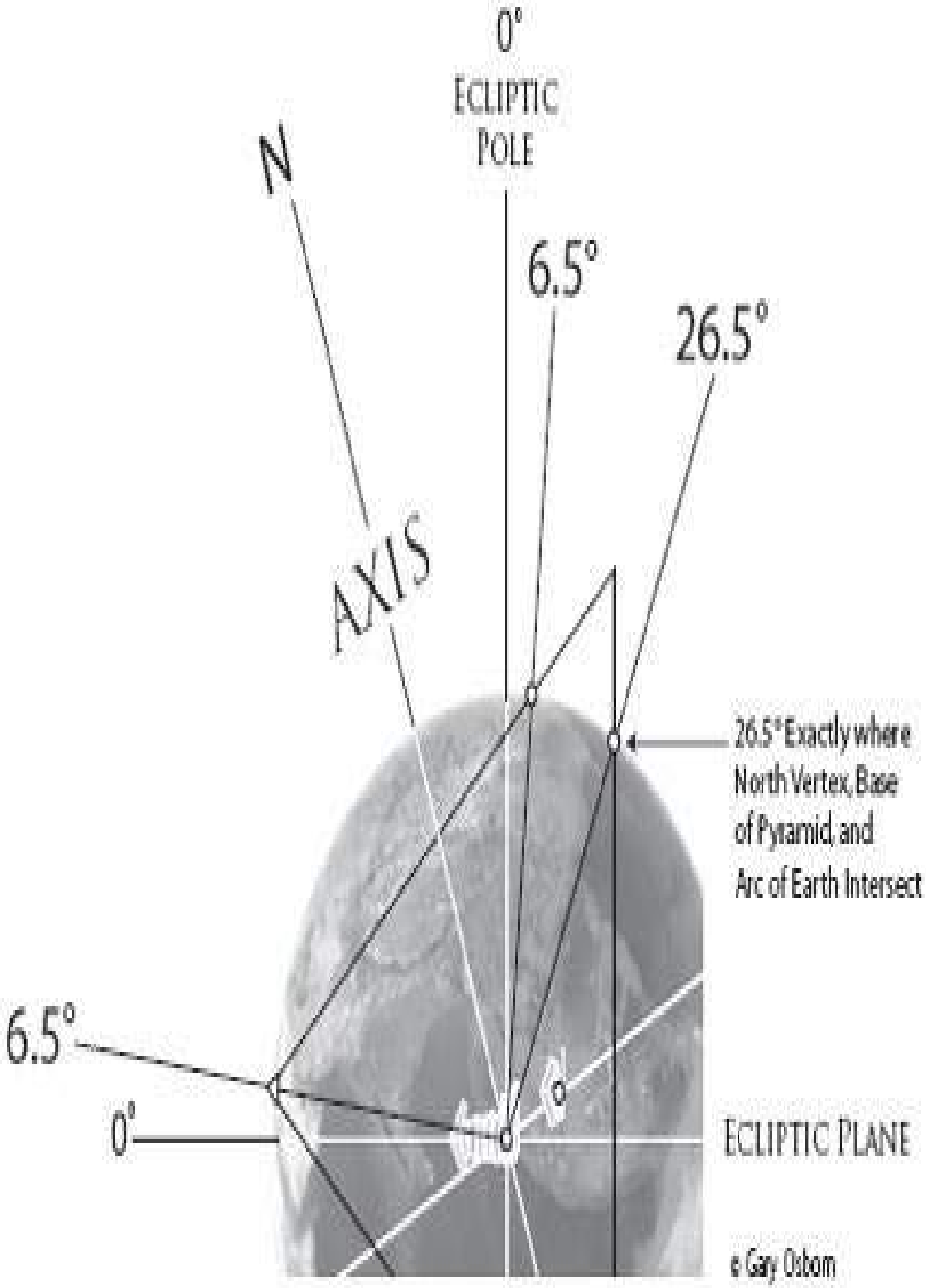

0°
ECLIPTIC
POLE
N
6.5°
26.5°
AXIS
26.5° Exactly where
North Vertex, Base
of Pyramid, and
Arc of Earth Intersect
6.5°
0°
ECLIPTIC PLANE
© Gary Osborn

Figure 7.8. The 26.5° alignment—north vertex, base of pyramid, and arc of Earth

Also as indicated earlier, the point of the north vertex is 20° (figure 7.9). This particular value we find of particular interest, as it does not seem to be repeated anywhere and does not seem to easily connect with the other key angles found in the Great Pyramid; nor does it seem to be a key angle in Freemasonry. So what is the point, if there is any, in relating this particular angle? Can this angle be shown to relate to the other key angles of 6.5°, 23.5°, and 26.5°? In the next chapter of this book, we will discover that there is indeed a simple way in which this curious angle connects to all the other key angles we find in the Great Pyramid.

And what about the south vertex? Well, here too we find the same angles (figure 7.10).

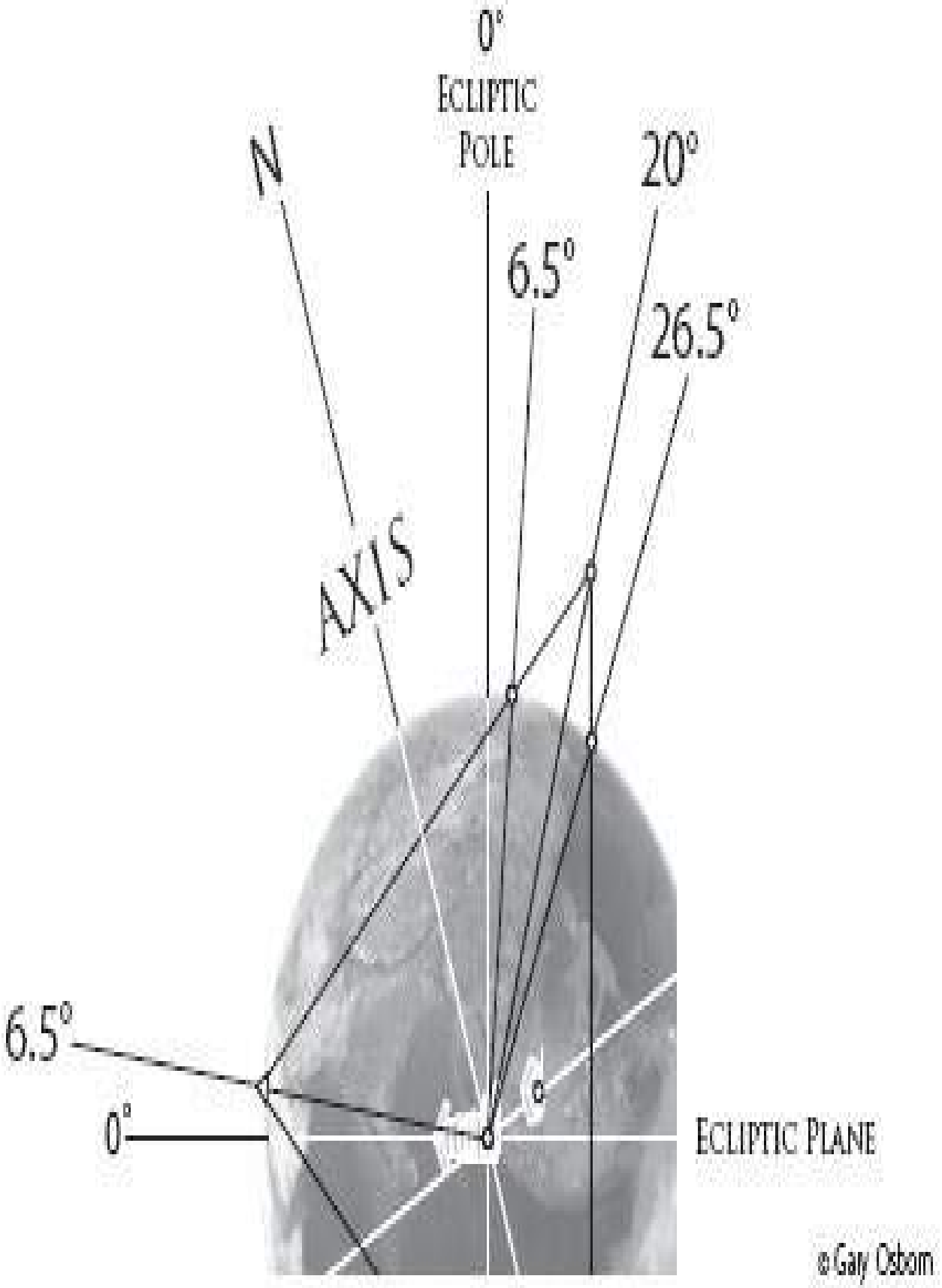

0°
Ecliptic
Pole
N
20°
6.5°
26.5°
Axis
6.5°
0°
Ecliptic Plane
© Gary Osborn

Figure 7.9. The 20° alignment—point of north vertex

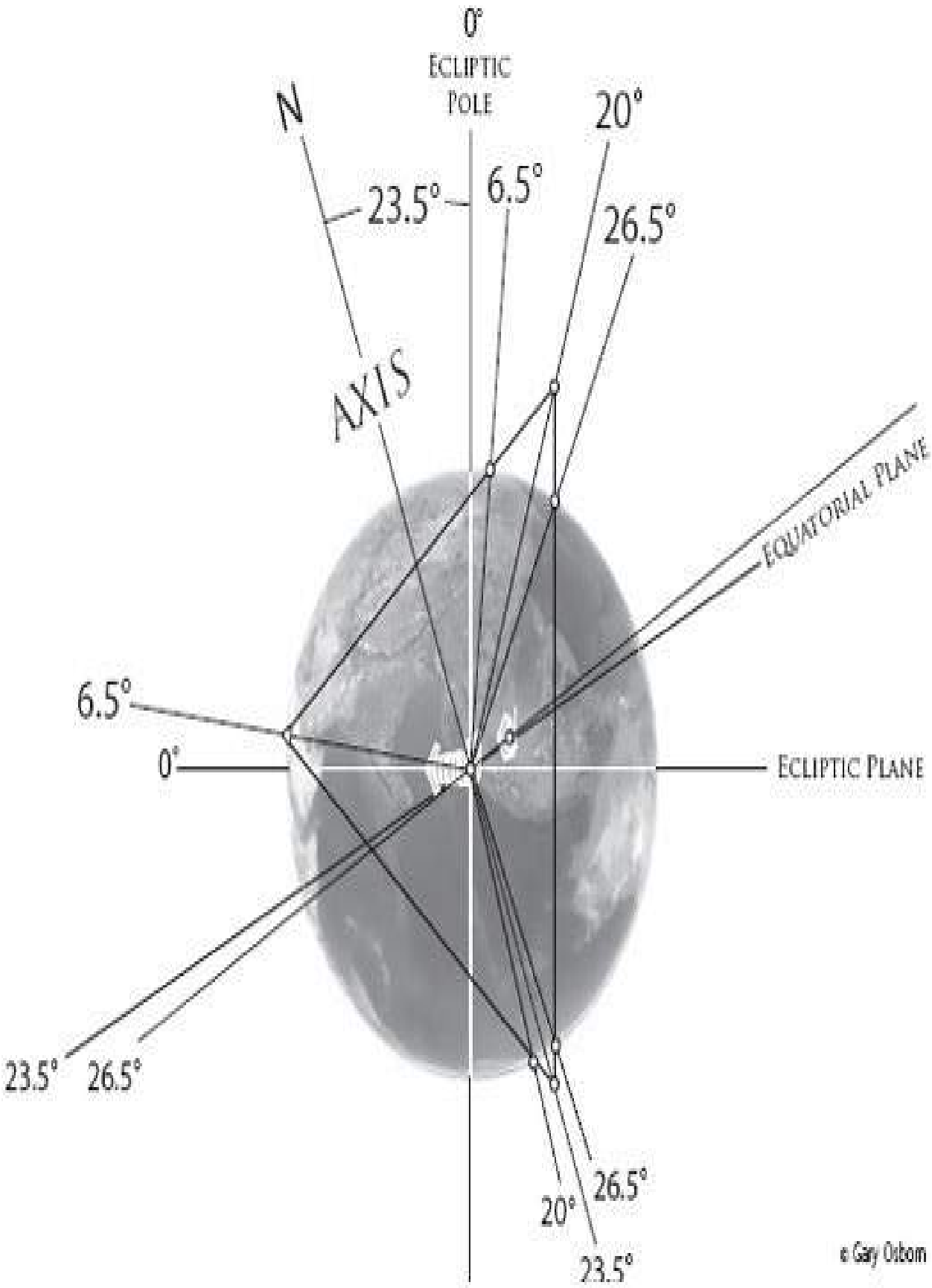

0°
ECLIPTIC POLE
N
20°
23.5°
6.5°
26.5°
AXIS
EQUATORIAL PLANE
6.5°
0°
ECLIPTIC PLANE
23.5°
26.5°
20°
26.5°
23.5°
© Gary Osborn

Figure 7.10. The north and south vertex angles

By being placed on a 360° circle, an image of the Great Pyramid in an east-west cross-section can be used as a gauge marker for showing where the Great Pyramid would be with respect to the equator and the ecliptic plane.

Now we can see why the Queen's Chamber shafts at around 39° and the side angles of 51.84° (and in arc-minutes, 51°, 51 minutes, 14 seconds) were crucial to the design of the Great Pyramid. As John Tatler writes:

The design of the Pyramid was such that it was able to model a globe. This may only occur at a precise pyramid slope angle of 51° 51 minutes 14 seconds, the Great Pyramid has this very same slope angle. This is because the ratio of the pyramid height to its base perimeter is exactly twice pi. Put another way as the height of the pyramid is to its perimeter at its base then so is the radius of a circle to the circle's circumference. This ratio can only be achieved at the exact angle of 51° 51 minutes 14 seconds.[1]

Now the how and why regarding the presence of all this information within the Great Pyramid can, of course, be argued. For example, people might ask, Where did the ancient Egyptians acquire this advanced geophysical information? Or, Was this information encoded intentionally—or is it all mere coincidence?"

At this stage these are natural questions that many of us would ask, and of course many of us would take the attitude that this is all just a coincidence without thinking about it any further. However, the fact remains that this information is nevertheless present, and the fact that the Great Pyramid is actually pointing to its own location on Earth may indeed support what appears to be deliberately

and intelligently applied encoded information.

And in any case, why would we presume that the people who built the Great Pyramid would not be in possession of such knowledge about Earth and the Great Pyramid's location on it? In reality—as we have shown earlier in this book with the use of a pair of obelisks, the sun, and the means to record and measure shadows—it is very simple to discover that Earth is a sphere and that it is tilted at an angle.

Dr. Carl Weiland observes:

Measuring the lengths of the shortest and longest shadows was very important to these ancient astronomers, as their religious feasts were tied to these two special days. If you got the measurements wrong, your head would probably roll! So these results were carefully recorded on stone and papyrus. Many of the measurements taken over the past 3,000 years from places such as China, Europe, England, India and Egypt are available to us today. The length of the shadow really depends on the tilt of the earth.[2]

In De Bello Gallico, Caesar wrote that the Druids discussed and imparted to the young "many things concerning the heavenly bodies and their movements, the size of the world and of our earth, natural science, and the influence and power of the immortal gods."[3] (emphasis added)

On the Ancient Wisdom website, Alex Whitaker writes:

The writing of astronomical texts—Clement of Alexandria gives the titles of four Egyptian astronomy books (which have not survived): a) On the Disposition

of Fixed Stars and Stellar Phenomena, b) On the Disposition of the Sun, Moon and Five Planets, c) On the Syzergies and Phases of the Sun and Moon, d) On Risings. These texts may not have been intended for publication, but were available only to the priesthood, which forbade the general exposure of their philosophy. This may help to explain why so little of Egyptian science has come down to us directly from the Egyptians, rather than indirectly from the Greeks such as Pythagoras, who was initiated into the Egyptian mysteries.[4]

It could be said that what is being presented here within the geometry of the Great Pyramid is a simple, factual reference, a record in stone pertaining to the geophysical condition of our planet—much like what we would find in any encyclopedia. On one level this picture relates to all the other factual and referential planetary, orbital, and cosmological data that others have found (or have claimed to have found) hidden within the measurements and dimensional geometry of the Great Pyramid.

If there is indeed merit to this correlation, we suspect this information relating to the obliquity of Earth's axis is more than a mere passing reference; what we see here is perhaps the introduction to a code that contains further important information that is yet to be uncovered. And, if fully intended, the only people who would have any hope of recovering and understanding this code are those that had already figured out these geophysical facts pertaining to Earth, in that what we see in the Great Pyramid can be recognized and compared with the known facts of our planet with which we are already familiar.

We must ask ourselves, however, what would be the point in presenting this encoded geophysical picture to people who already knew and understood it, people who had perhaps discovered this knowledge for themselves through other means. It stands to reason that the people who encoded this information would likely have had a more profound motive for so doing than merely communicating to future generations, "Hey, we knew about this!"

It seems that whichever way we look at the Great Pyramid—inside or outside—we are presented with the same information: the key angles of 6.5°, 11.75°, 20°, 23.5°, and 26.5°. And it seems, once again, that we are confronted with evidence of an advanced nature; that it seems to have been understood at some point in ancient times that Earth was actually a sphere; and that we are, once again, being presented with the faint echoes of a sophisticated and scientifically astute hand in the design and placement of these great monuments at Giza.

We suspect that the point of all this may be more about raising our awareness of particular configurations of Earth's orbital dynamics that may not in fact be easily or instantly observable to us or understood. We think that within these repeated angles found in the Great Pyramid, there is additional scientific knowledge to be gleaned—knowledge perhaps of a hidden or forgotten aspect to the motion of Earth's polar axis, as it is this single feature (angle) that seems to be implied in all these references, stretching all the way into modern times, as we have seen in the opening chapter of this book.

Although, of course, such knowledge may already be known and understood by certain secret societies that prefer to keep such knowledge to themselves. In the next chapter we will consider the angle of Earth's polar axis—its obliquity of 23.5°—in much more detail and from the perspective of ancient history and the construction of the Great Pyramid, and how it may be that there is more significance to this particular angle than a mere passing reference.

Chapter 7 Summary

The Great Pyramid of Giza—in an east-west cross-section—contains within its angle geometry a geophysical map of Earth with its own location in relation. Its own location is the key by which all this geophysical information can be understood.

When placed—superimposed—over a 360° circle representing the circumference of Earth and with the King's Chamber aligned with the center of this circle, the cross-section can be used as a gauge marker for showing where the Great Pyramid would be with respect to the equator and the ecliptic.

The initial picture that we find here may contain further information in the form of angles, from which a more profound message relating to Earth's orbital dynamics is perhaps being conveyed.

8

THE PARADOX OF THE STAR-SHAFTS

In chapter 2 we noted that the Great Pyramid of Giza contains four narrow shafts (each about eight inches square) within its superstructure: two shafts in each of the two upper chambers of the pyramid, two oriented to the northern sky and two oriented to the southern sky. We also noted that these two sets of shafts are inclined at different angles (figure 8.1) and that they are believed by orthodox Egyptologists to have been directed toward four particular stars ca. 2550 BCE that were of religious importance to the ancient Egyptians at that time.

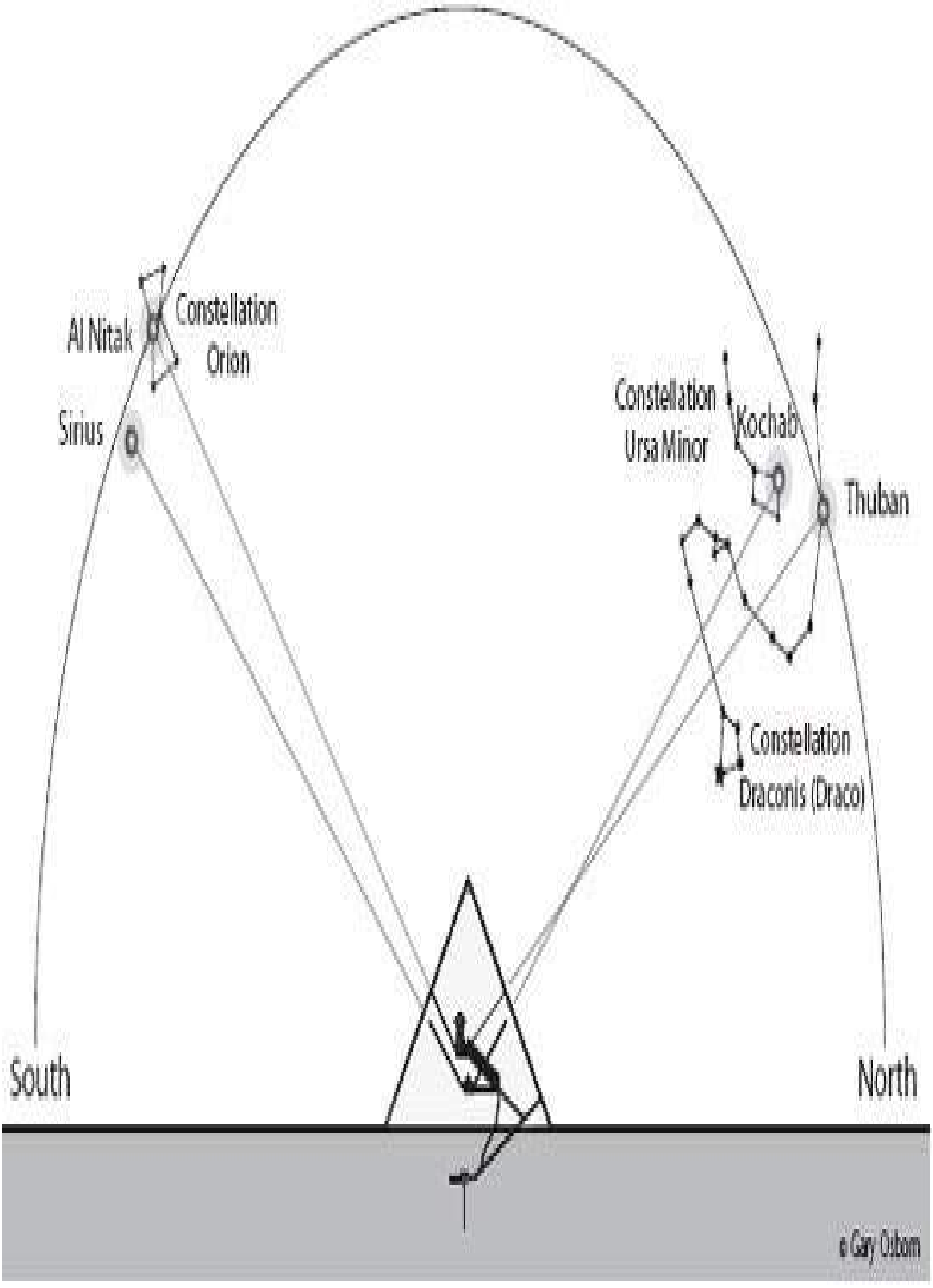

Al Nitak
Constellation
Orion
Sirius
Constellation
Ursa Minor
Kochab
Thuban
Constellation
Draconis (Draco)
South
North
© Gary Osborn

Figure 8.1. The Great Pyramid and its star shafts

However, that the designers should wish to target four particular stars for religious or cultic reasons may, in fact, be an erroneous assumption on the part of the Egyptologists. The identical (or near-identical) angles of the two Queens' Chamber shafts, for instance, seem to suggest that the balance of the shafts (i.e., their near-identical inclination) was actually more important than any stars that might pass across the shaft openings (a detail that will be discussed shortly).

As we will show, these two shafts at near-identical angles of inclination could just as easily have been set in this way to facilitate a balanced and symmetrical design of the pyramid itself. Indeed, that the Queen's Chamber is placed in the midplane of the Great Pyramid—as noted earlier in this book—is central to this idea. In effect, the dimensions of the Great Pyramid's outer slopes can be shown to be a direct consequence of the geometry of its shafts. Thus it can reasonably be argued that the star-shafts should be deemed the key element of the Great Pyramid's design and, as such, of primary significance to our investigation.

It has always been assumed by conventional Egyptology that during the design phase of the Great Pyramid, its slopes (seked 5.5*6) were defined first, and the angles of the shafts that would be placed within the body of the pyramid were chosen only afterward. Naturally, it would follow that if the angle of the pyramid's outer slopes had already been determined, for the shafts to reach the pyramid's exterior as quickly and efficiently as possible, the angle of those shafts —as pointed out by the mathematician and academic John Legon—should be placed at right angles to the pyramid's slope (or as near to this as was practical).[1]

However, what conventional Egyptology has failed to consider is the inverse situation with regard to the wider stellar hypothesis of these shafts (as proposed by numerous scholars and writers over the years), which prompts the obvious

question, What if the primary design element was not actually the Great Pyramid's slope but was in fact its four shafts and, more specifically, the angles at which those four shafts are inclined? If this were the case, it logically follows that the angle of the Great Pyramid's outer slope would have been determined from its shafts (during the design phase) and not the other way around, as all commentators have long assumed.

The idea that the original purpose of these shafts had something to do with their possible alignment with the northern circumpolar stars (known as the "Imperishables," because they never set) and the southern setting stars was first put forward by scholars Alexander Badawy and Virginia Trimble in 1964. More recently, writer and researcher Robert Bauval has suggested that the shafts were "stargates" constructed to guide the departed pharaoh's soul to the heavens.[2] However, like most theories, this conclusion has had its fair share of critics, who are right to inform us that:

No stars can be observed through the shafts as the angles of the shafts are irregular.

The shafts are horizontal for a short distance where they exit from the chambers.

Two of the shafts—those exiting the Queen's Chamber—don't even reach the pyramid's exterior and as late as the nineteenth century were sealed within the chamber.

Bauval seems adamant that he is right and that these alignments of the shafts are of a symbolic stellar nature. He further informs us that first the southern shaft of the King's Chamber (45°) aligned with the star Al Nitak in the constellation of Orion around 2475 BCE. This is long after the reign of the Fourth Dynasty Pharaoh Khufu, who, according to conventional wisdom, reigned between 2589

to 2566 BCE, and who Egyptologists believe had ordered the construction of the Great Pyramid as his own personal tomb. Bauval says that at this time Al Nitak within Orion's Belt was crossing or transiting the Giza meridian (due south) at an altitude of 45° exactly.

Bauval then informs us that the northern shaft of the King's Chamber at an inclination of 32°, 28 minutes from horizontal aligned with the polestar Thuban in the constellation of Draco around 2425 BCE. There is no date given for the northern shaft of the Queen's Chamber, which Bauval claims aligned with the star Kochab in the constellation of Ursa Minor. Finally, Bauval states that the southern shaft from the Queen's Chamber (39°, 30 minutes) aligned with Sirius around 2400 BCE.

Clearly there is a problem here, because logically the lower courses of masonry surrounding the Queen's Chamber would have been constructed before the upper courses surrounding the King's Chamber. However, we are being told that the shafts from the later-constructed King's Chamber were meant to align with Thuban and Al Nitak before the shafts of the Queen's Chamber could ever possibly have aligned with Kochab and Sirius, implying that the pyramid shafts were somehow constructed from the top down. This makes little sense.

Furthermore, it is suggested by some Egyptologists that the erroneously named Queen's Chamber was in fact constructed only as a standby burial chamber for the king (much like Sneferu's cenotaphs) should the builders have failed in their greater goal of constructing the main King's Chamber higher up in the pyramid. This idea, however, seems to be contradicted by the angles of the shafts, which are significantly different in the King's Chamber from those of the Queen's Chamber. This proposal would seem to imply that Khufu apparently changed the stellar destination of his soul (assuming this was the shafts' function) during the construction of his pyramid and thus changed the angle of the King's Chamber shafts to reflect this change of mind for the stellar destination of his soul.

Oddly, however, Khufu continued to construct the (supposedly now redundant) Queen's Chamber shafts long after his apparent change of mind. It seems somewhat peculiar that Khufu would continue to construct the Queen's Chamber shafts (at the very same time as the King's Chamber shafts were being constructed) when it seems that he had already changed the stellar destination for his soul as evidenced by the changed angle of the King's Chamber shafts. Why continue to construct the two Queen's Chamber shafts when these apparently had been superseded by the new stellar destination implicit in the changed angles of the King's Chamber shafts?

From what we now understand, it is tempting to agree with Bauval and his predecessors on the theory that the shafts do indeed have some kind of stellar connection or function. However, although Bauval's own thesis is interesting, the order in which he places these dates leaves room for some doubt, which leads us to take the view that there has to be some other stellar function for the shafts of the Great Pyramid than facilitating the symbolic guidance of the pharaoh's soul to the heavens.

Due to the work of German explorer Rudolph Gantenbrink[3] and the small robot he constructed to explore these shafts, it has so far been found that some two-thirds up along its length, the southern shaft exiting the Queen's Chamber had been purposely blocked by two "doors" or limestone plugs some five inches square. The discovery of the first door immediately caused a media sensation. This door was later breached by sending a robot up the shaft with a drill attached so as to make a hole big enough in the door to pass a camera-eye through. But once through, a second door was found.

At present, Gantenbrink's work continues to try to see or go beyond these doors and to discover what might lie on the other side; it has been theorized that a chamber may exist at the end of the shaft. At the time of writing, some curious markings (possibly an early form of hieroglyphs) have been found on the other side of the second door. At present there seems to be no academic consensus as to what these markings actually represent. In any case, as a result of

Gantenbrink's fastidious explorations, all four shafts have now been carefully tracked, meticulously examined, and measured from inside, every twist and bend recorded, analyzed, and assessed.

However, everyone seems to be searching for a practical purpose for these shafts. They point out that no light can shine down the shafts from a passing star, and this fact is still being used to debunk the star-shaft theory, even though Bauval has stated many times that these shafts were probably only ever of a symbolic nature—inasmuch as they guided the dead pharaoh's soul to its stellar destination as believed by many mainstream Egyptologists.

But here also there are questions. If the king desired that his soul should ascend to particular locations in the heavens, simple logic dictates that his architect would first have to measure the altitude of these celestial locations (stars) and then ensure that the shafts that were eventually to be built into the body of the pyramid were angled at these precise inclinations to facilitate the correct ascent of the king's soul to the desired celestial locations upon his death (when the stars will likely have shifted a fraction). However, if, as mathematician John Legon proposes, the shaft angles were determined purely around the practicalities of reaching the exterior of the pyramid as quickly and efficiently as possible (one would presume above and to the detriment of the king's apparent desire that they should be best angled to enable his soul to ascend to particular stellar locations), then the king's soul might actually have ended up in limbo, never reaching its intended destination in the heavens.

Concerning the shafts themselves, perhaps we should all stand back a little and take a more lateral perspective, as it were. In our view, the initial intention of the designers of these shafts was that they be viewed as pointers to the skies, serving more like the arrows we see in drawings and diagrams that are often used to indicate the more significant features within the diagram.

While the four shafts do indeed target different points in the sky (and inevitably

do so night and day since they point skyward), they are, in our considered opinion, inextricably associated with just one star—the star Al Nitak in Orion's Belt. It is this one star, Al Nitak, for which the Great Pyramid may have been built as a terrestrial counterpart as we showed in chapter 3. And it is the southern shafts within the Great Pyramid that make reference to the changing altitude of this one star, Al Nitak, and, in so doing, present to us a very simple and logical "message." The two northern shafts of the Great Pyramid are but the reflection or complement of their southern counterparts, as we will now observe. And it is worth taking note here also that the ancient Egyptians themselves believed that within the Orion (Sah) constellation there was one star above all others that was of great importance to them. As mathematician and ancient Egypt researcher John Legon explains:

Although it appears that in later contexts, the name S3h [Sah] could refer to the constellation of Orion as a whole, yet there can be no doubt that just as Sirius stood alone in the sky as the embodiment of Isis, so also only one star in the constellation of Orion could have been supposed to embody the spirit of Osiris, or that of the deceased king in the guise of Osiris. This conclusion is obviously supported in the decan lists of astronomical ceilings, in which the deities of the different stars are given. In the tombs of Senmut, Pedamenope, and Montemhet, for example, Osiris is associated with the star known as hry rmn S3h, the star "under the arm of S3h"; while elsewhere, according to Parker and Neugebauer's classification, the same star with the presiding deity of Osiris is identified as S3h specifically. Other stars of Orion were referred to in the decan lists as Children-of-Horus and Eye-of-Horus. . . . The Egyptians never lost sight of the fact that only one star in the constellation represented Osiris.[4]

The Shafts First

As stated earlier, the star-shafts within the Great Pyramid of Giza may well have been the primary and critical design feature that the ancients sought to set in stone within the body of the structure. From this premise it logically follows that the angle of each of the Great Pyramid's slopes—a fraction under 52°—could be viewed as simply the result of squaring the angle of the two fairly equally inclined shafts of the Queen's Chamber. While both the Queen's Chamber shafts are inclined at a little over 39° (39.12° for the northern shaft and 39.65° for the southern shaft), for simplicity we will use the 39° value.

The shafts-first hypothesis also explains precisely why two shafts of identical inclination would (by necessity) have been sought by the designers—not for cultic or other esoteric and/or religious reasons, but to ensure a symmetrical, balanced design of the pyramid structure. This is not to say that symbolic aspects did not feature in the structure; there most likely were symbolic aspects to the shafts, and these will be discussed later.

In consideration of the four shafts within the Great Pyramid, it stands to reason that the inordinate amount of resources and effort that would have been required to place these quite unique features within the body of the pyramid lends considerable weight to their primacy and importance. Simply put, the Great Pyramid may have been constructed to carry its four shafts; these four shafts were of paramount importance.

This idea is most certainly radical and far-reaching. Undoubtedly some will even consider it ludicrous. The shafts-first hypothesis turns our whole view of the Great Pyramid design and, indeed, its very purpose (and that of the shafts) quite literally on its head. What possible reason could there be to construct a structure such as the Great Pyramid around two sets of two shafts? What was it that was

so important to the ancient designers and builders about these shafts that they should expend so much blood, sweat, and tears to ensure they were built into the superstructure of the Great Pyramid, indeed, that the Great Pyramid itself was designed around these shafts?

The answer is perhaps remarkably simple. The four shafts of the Great Pyramid might not have been designed as conduits of air or for the guidance of the king's soul to a particular stellar destination, but rather as conduits of information, a means to convey knowledge. Throughout this book we have noted constantly how particular angles may have been deliberately chosen in works of art, emblems, keystones, and so forth to encode information. In this regard, the angles of the four shafts of the Great Pyramid may be no different. As a notebook is designed to allow us to place information within its pages, so the Great Pyramid may have been designed to carry vital information through its four carefully angled shafts—like arrows pointing skyward.

As mentioned earlier, the difficulties the builders would undoubtedly have faced in constructing the pyramid around these shafts demonstrates a clear spirit of purpose and determination that could have been matched only by the seriousness and importance of the information—the message—the shafts themselves may have been designed and built to convey, albeit in a symbolic manner.

The Stellar Pyramid Design

As indicated, it is entirely possible that the slope angle of the Great Pyramid was determined using the altitude (i.e., the angle above the horizon) of just one star—Al Nitak in Orion's belt. The diagrams in figures 8.2 a–d demonstrate how, from this simple premise, the Great Pyramid is designed.

Step 1a: The altitude of Al Nitak is measured on the southern meridian (due south) to give the inclination of the southern shaft (Queen's Chamber).

Step 1b: The altitude of Al Nitak is then simply mirrored to give the inclination of the northern shaft (Queen's Chamber).

Step 2a: The second altitude position of Al Nitak is measured on the southern meridian for the southern shaft (King's Chamber).

Step 2b: The second altitude position of Al Nitak is then mirrored to give the inclination of the northern shaft (King's Chamber).

Now what seems quite apparent in figure 8.2d is that the angle of inclination of the northern King's Chamber shaft does not seem to be the same angle ("mirror") of its southern counterpart. There is a very simple reason for this, which will be explained shortly. We now have the two sets of shafts of the two chambers set from just one star (Al Nitak), as in figure 8.3a on page 226.

Note how the two lower shafts (Queen’s Chamber) appear balanced, while the upper shafts (King’s Chamber) appear unbalanced and are slightly offset from the central axis. From this very simple starting point, we can now define the slope, height, and width of the Great Pyramid.

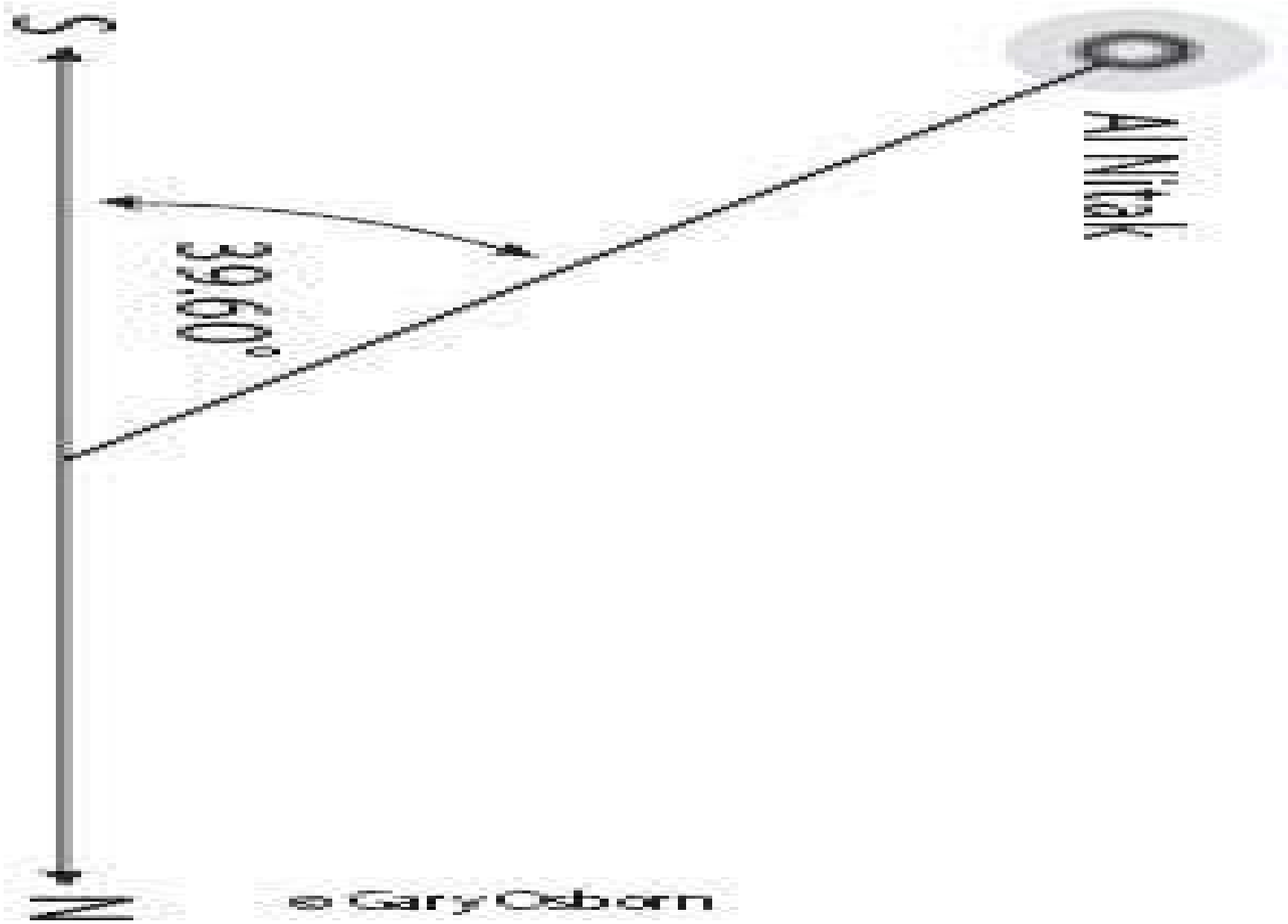

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Figure 8.2a. The altitude of Al Nitak in Orion's Belt is measured for the southern Queen's Chamber shaft (step 1a).

Al Nitak
Al Nitak
"Mirror"
39.60°
39.12°
S
N
Copyright © 2007 Jason Dorfman

Figure 8.2b. The altitude of Al Nitak is mirrored to give the northern Queen's Chamber shaft (step 1b).

Al Nitak
45°
S
N
Eucapso Aegis 8

Figure 8.2c. The second altitude position of Al Nitak is measured for the southern King's Chamber shaft (step 2a).

Al Nitak
Al Nitak
"Mirror"
45°
32.60°
S
N
© Gary Osborn

Figure 8.2d. The second altitude position of Al Nitak is mirrored to give the northern King's Chamber shaft (step 2b).

Step 3: Two squares are set on the angle of the lower (Queen's) shafts.

Step 4: The apex of the pyramid is now set.

The apex of the pyramid is now set (by the square of the angles of the Queen's Chamber shafts), thereby setting the slope of the pyramid, which is a little over 51° (being the complement of the lower shaft angles at around 39°).

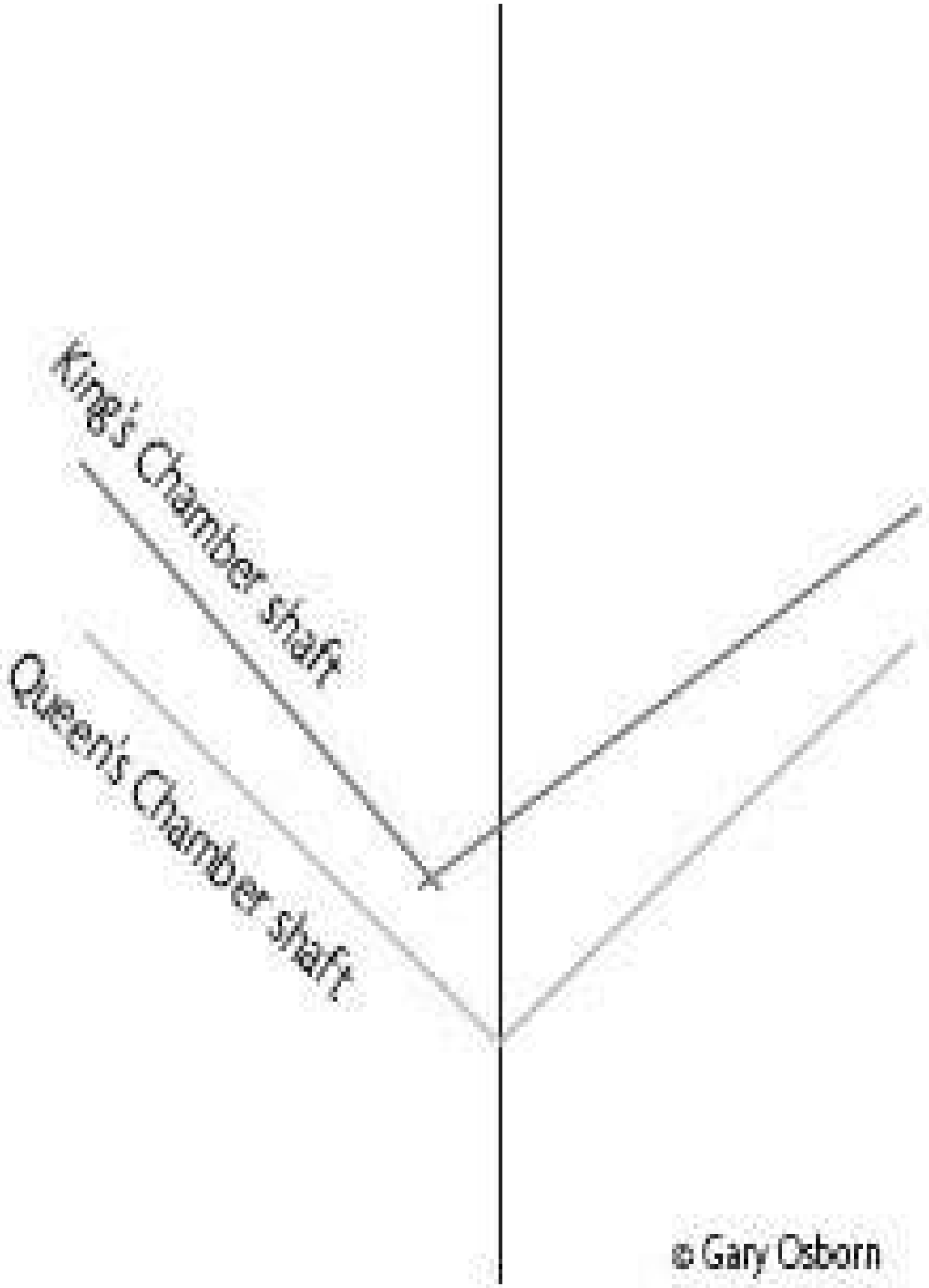
King's Chamber shaft
Queen's Chamber shaft
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Figure 8.3a. The shafts are placed on a central axis.

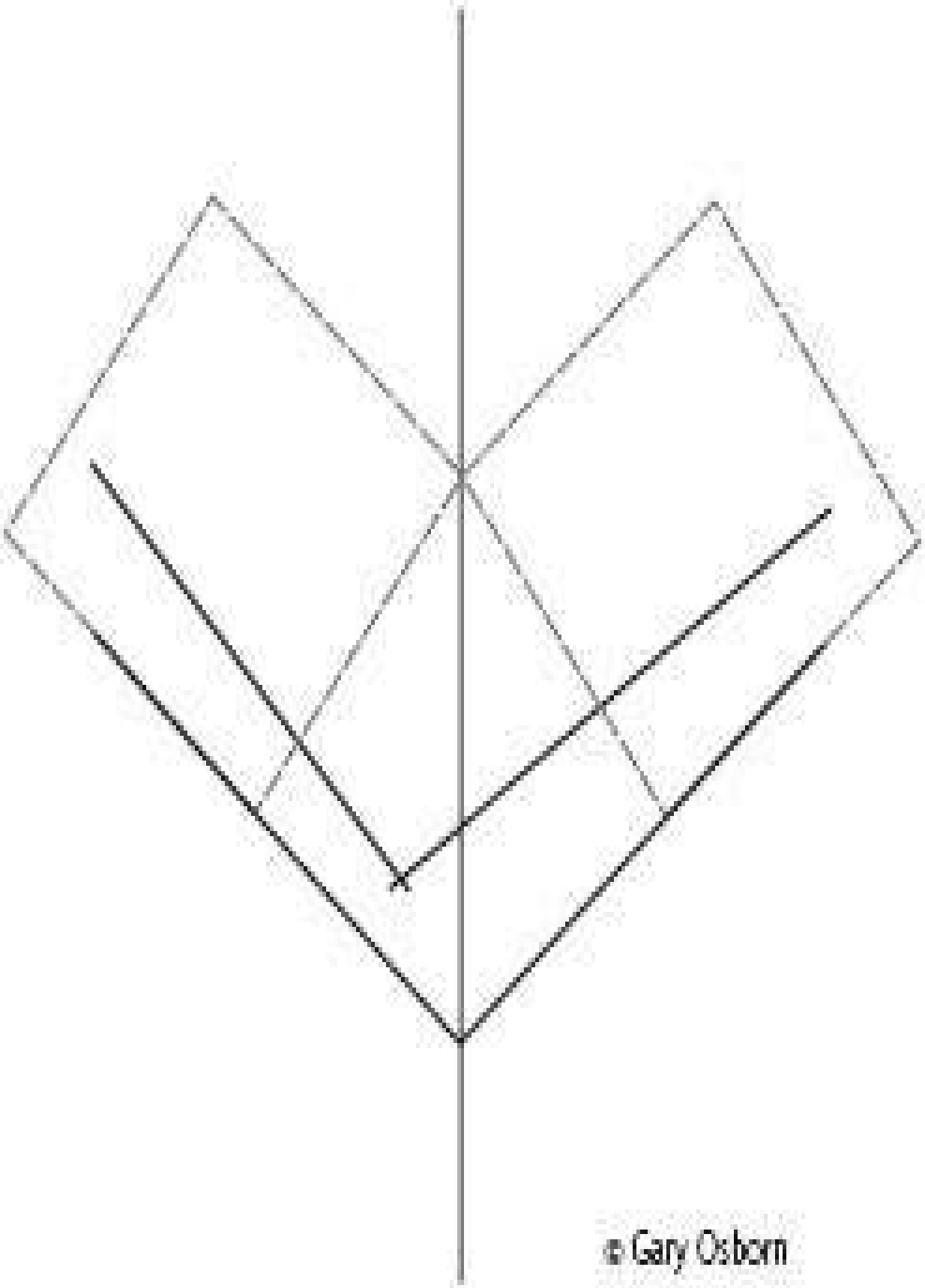
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Figure 8.3b. The angles of the Queen's Chamber shafts are squared. Note how these two squares set on the lower shafts are bound by the central axis and the length of the upper shafts (step 3).

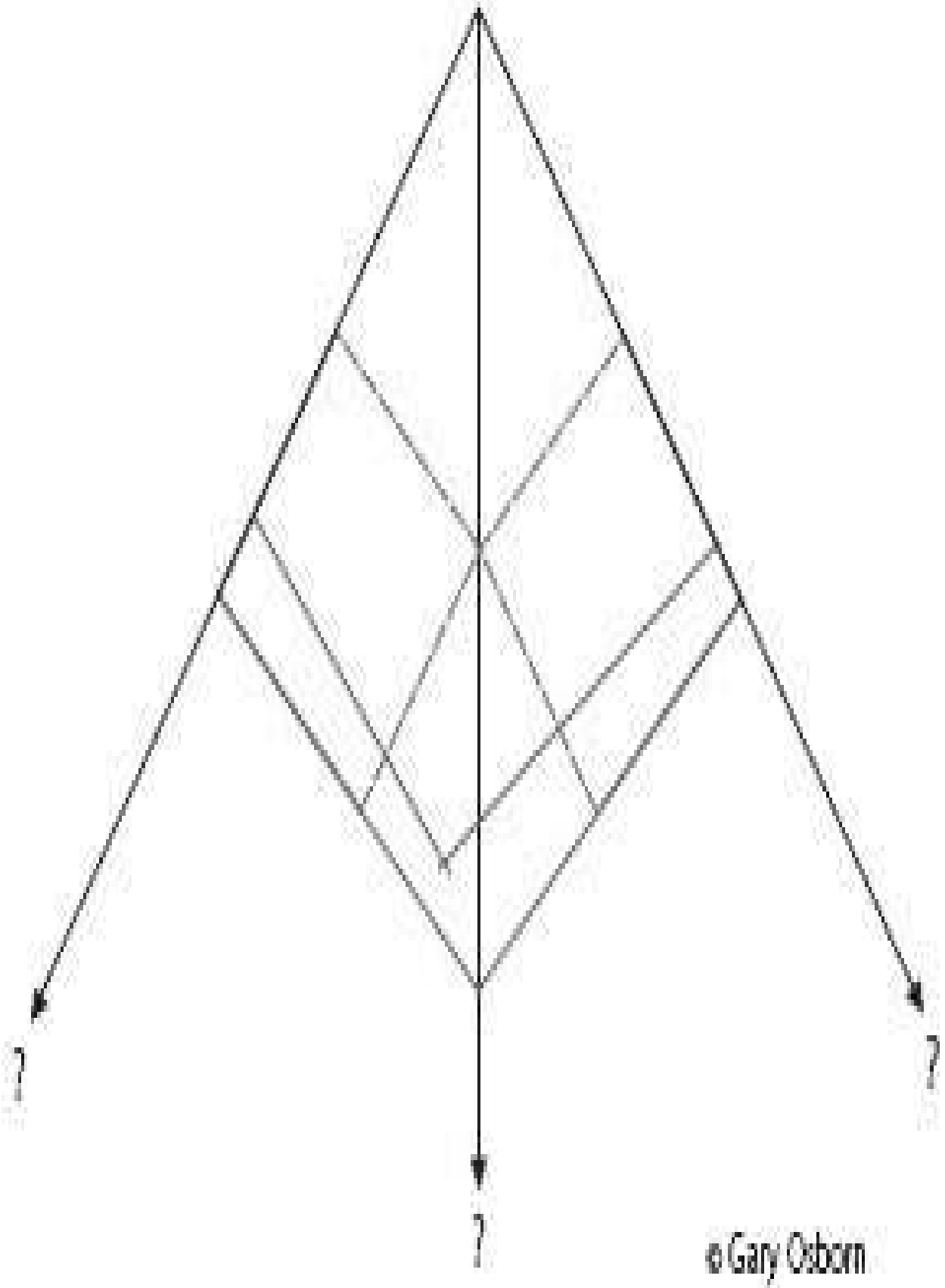
?
?
?
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Figure 8.3c. The pyramid’s apex is defined from two squares (step 4).

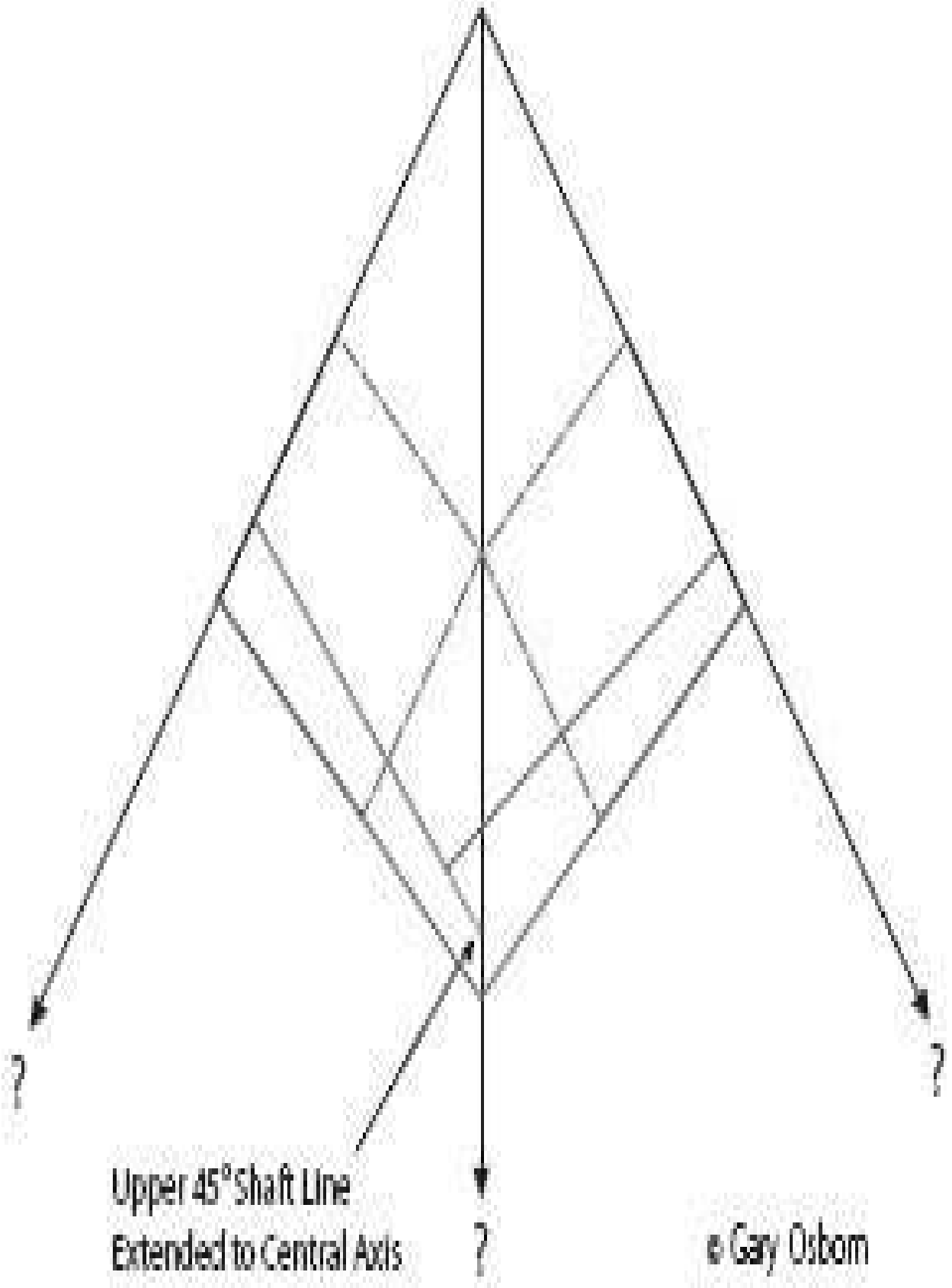
?
?
Upper 45° Shaft Line
Extended to Central Axis
?
© Gary Osborn

Figure 8.3d. The 45° King's Chamber shaft is extended to the central axis (step 5a).

However, we have still to determine the height and width of the pyramid. This is done simply and easily using the angle of the southern shaft of the King's Chamber, which is inclined at almost exactly 45°. It has often been noted that the Great Pyramid's height-to-base ratio is equal to pi ÷ 2. This would seem to indicate that a circle was involved in determining the Great Pyramid's height-to-base ratio.

Step 5a: Determining the pyramid height and base width.

Step 5b: Determining the pyramid height and base width.

Step 5c: The slopes of the pyramid are then extended to intersect the circumscribed circle.

Step 5d: The pyramid height and base ratio is now defined.

Step 5e: The Great Pyramid has now been defined by its star-shafts.

Thus it can be demonstrated that the star-shafts of the Great Pyramid can be used in a simple and systematic manner to define the actual slope and the height-to-base proportions of the Great Pyramid itself. One significance of the star-shafts, then, is the simple fact that they may well have been the underlying design

imperative around which the Great Pyramid was built, through the reference to Al Nitak at two different altitudes on the southern meridian (and mirrored to the northern meridian).

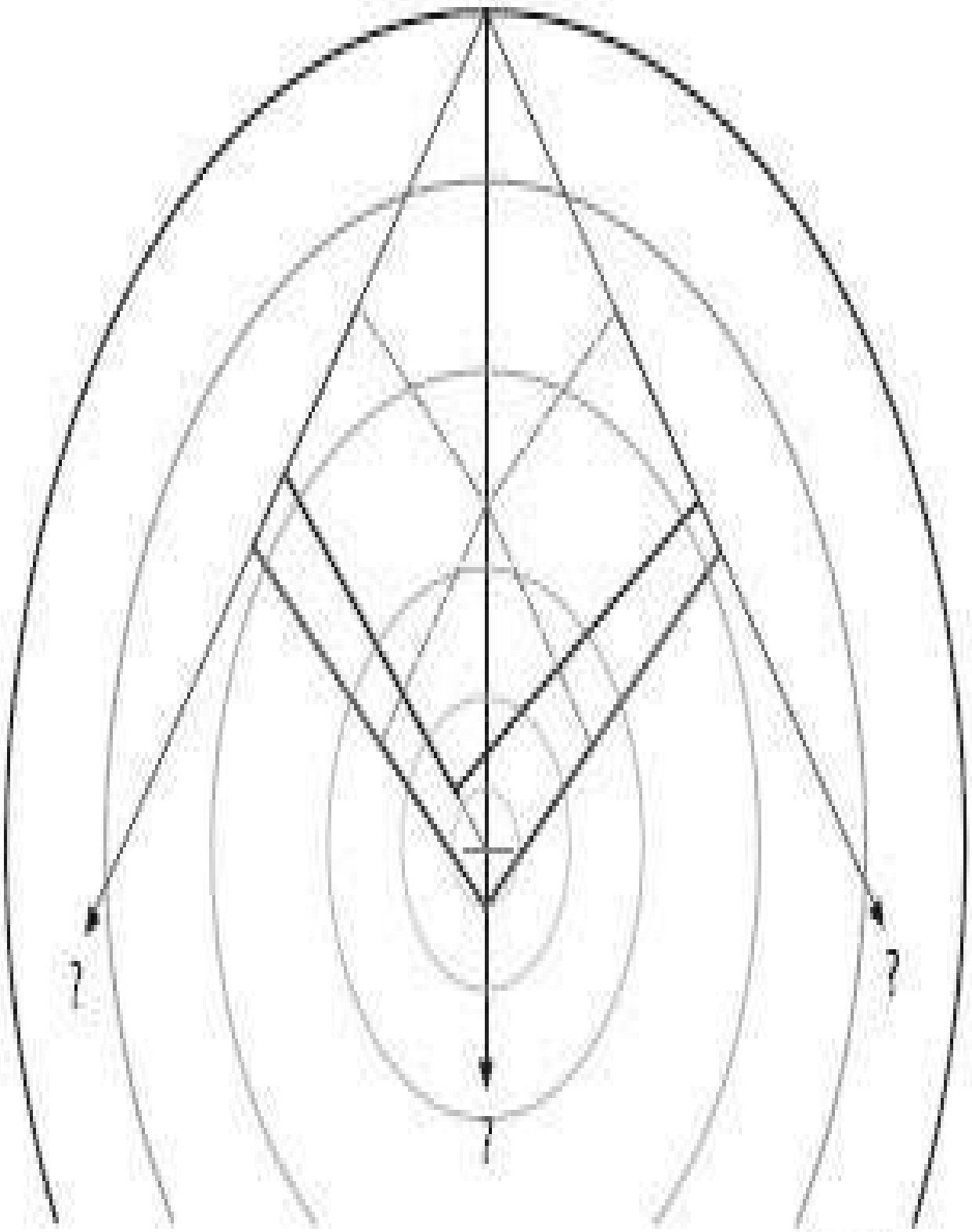

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Figure 8.3e. A circle is circumscribed around the apex (step 5b).

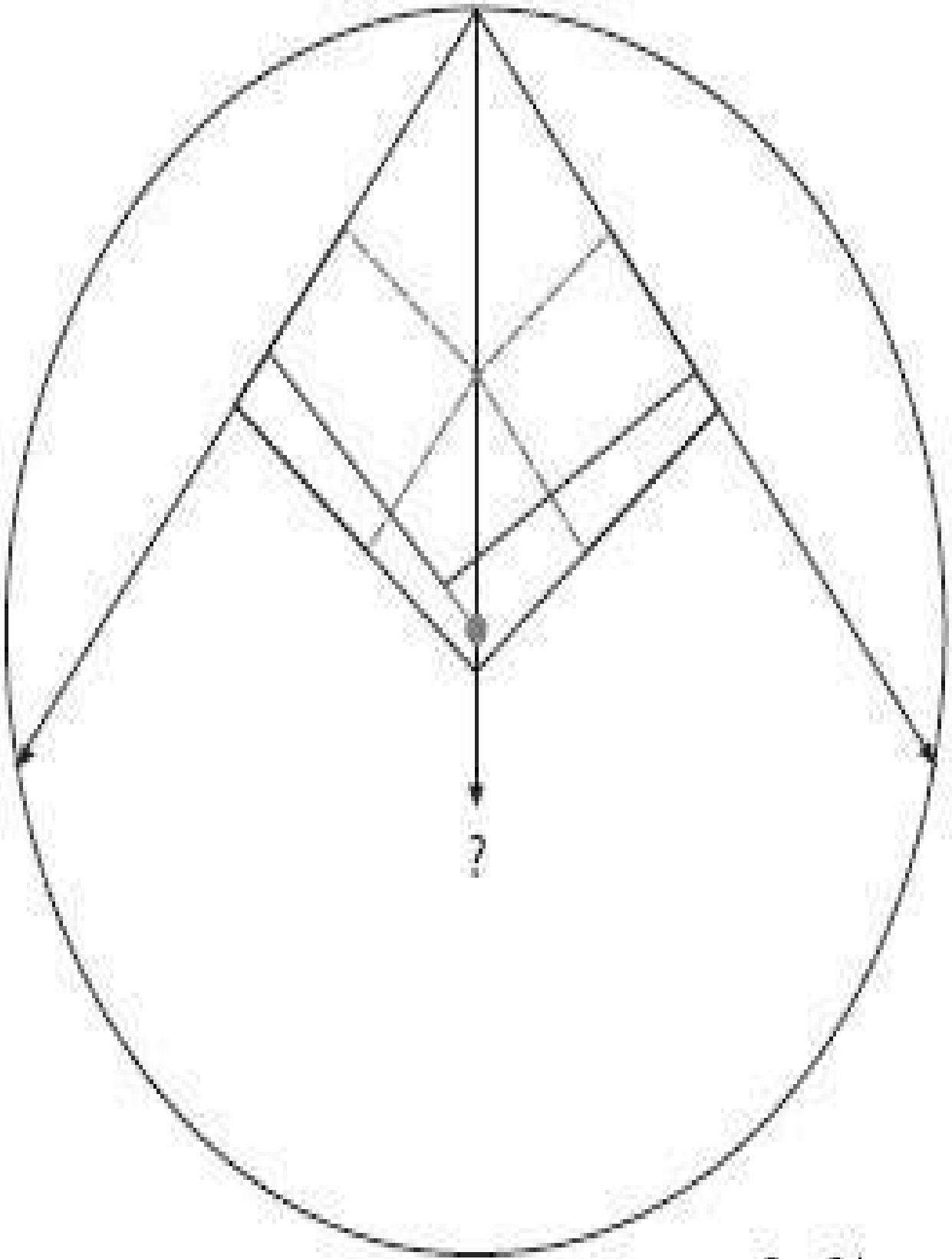

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Figure 8.3f. The slopes of the Great Pyramid intersect the circle (step 5c).

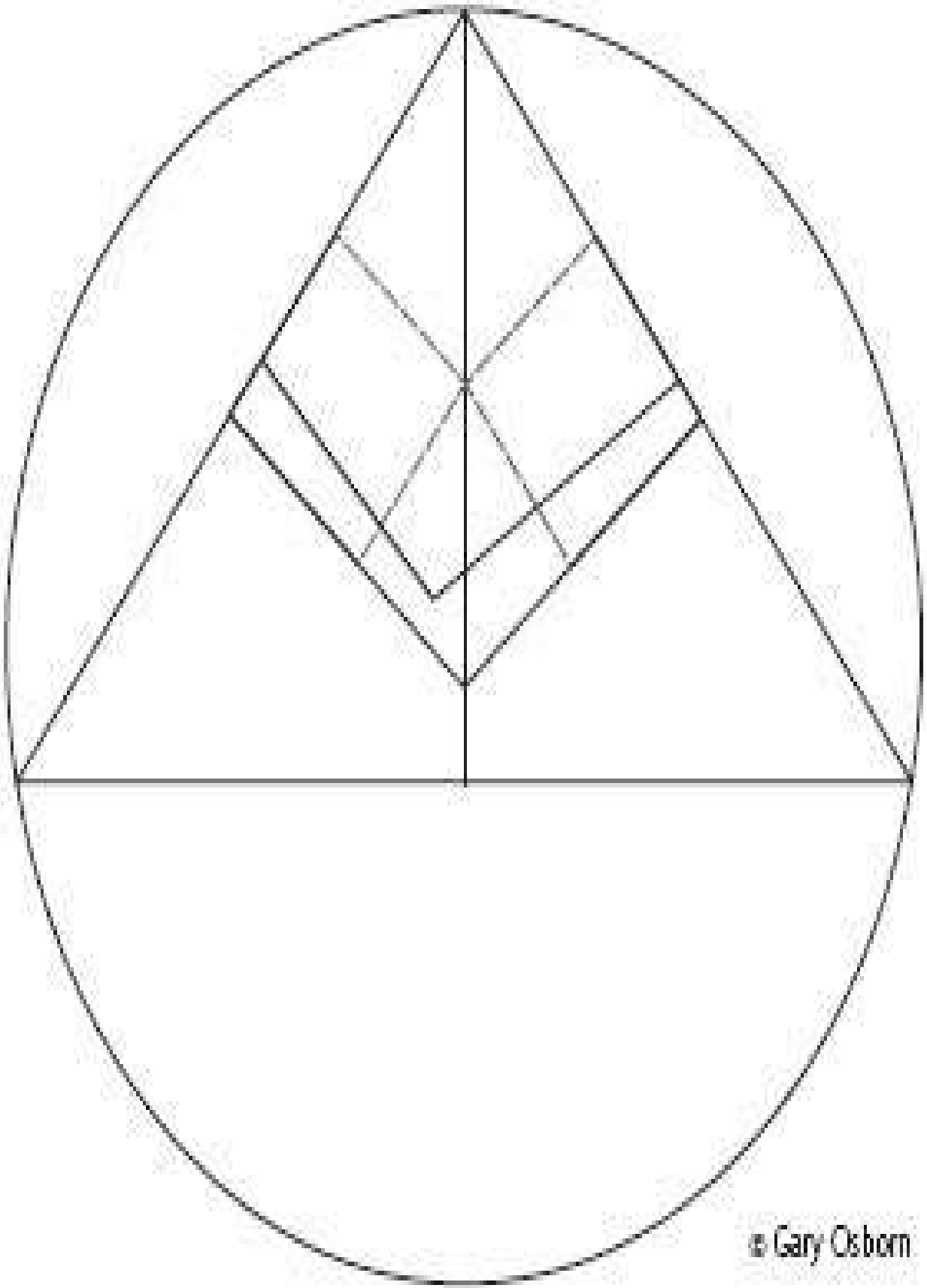
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Figure 8.3g. The Great Pyramid height and base ratio is now defined (step 5d).

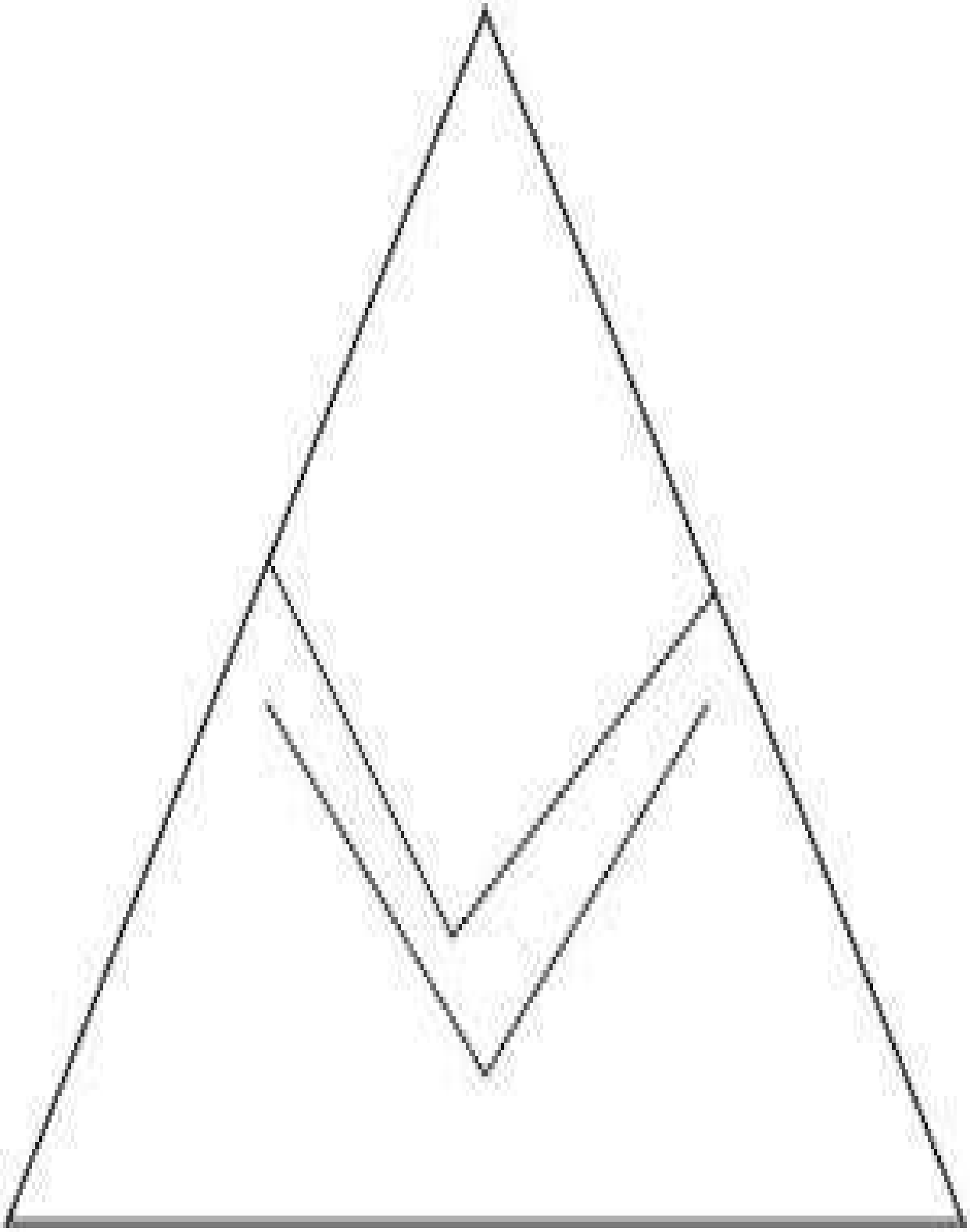

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Figure 8.3h. The Great Pyramid with its star-shafts (step 5e).

The Primacy and Significance of the Star-shafts

The shafts-first hypothesis advances the primacy of the shafts of the Great Pyramid and suggests that their significance lies in the information they were designed to convey. But what information could these two sets of shafts possibly carry?

The answer is simple—angles. Or—more specifically—the inclination angles of a specific star, Al Nitak (the Great Pyramid's stellar counterpart). But why only one star when there are four shafts? As mentioned earlier, in the stellar hypothesis advanced by Robert Bauval and others, it is believed that ca. 2500 BCE each shaft was designed to target one of four individual stars that apparently were of religious significance to the ancient Egyptians of this period, two in the northern sky and two in the southern sky.

As we have seen previously, however, it may in fact be the case that the two southern shafts were actually intended to indicate two different altitudes of the same star—the Great Pyramid's stellar counterpart, Al Nitak—while the two northern shafts served merely to mirror the southern shafts. But the northern mirrored shafts provide one other crucial piece of information in their design that has been largely overlooked, or has otherwise gone unexplained, by mainstream opinion. And it is this one piece of information—this barely visible clue—that reveals to us another quite intriguing alternative purpose for these enigmatic shafts. We will come to this shortly.

In the meantime, we noted that the two southern shafts indicate the altitude of Al Nitak at around 39° and also at 45° above the horizon. We also know from the design of the Great Pyramid that, at one point, both these southern shafts (and their northern counterparts) were being constructed at the same time. This is to say that the designers seemed to be indicating that the star Al Nitak in Orion's

Belt was at 39° and 45° at almost exactly the same time, since both southern shafts, with their quite different angles of inclination, can be seen to have been built simultaneously (figure 8.1), layer by painstaking layer, at two different angles of inclination.

The reader may recall from the opening chapter of this book the paradox of the Second Degree of Freemasonry: the candidate is initiated into the degree when the sun, at the moment of the initiation, is apparently at two widely different positions in the sky. Well, here we have in the shafts of the Great Pyramid an almost identical paradox. One might ask, how is it possible for the southern shafts (from the location of Giza) to target a star, in this case Al Nitak, at two quite different positions in the sky at exactly (or almost exactly) the same moment? Just as the sun cannot be at two positions in the sky at the same moment at the same location, Al Nitak in Orion's Belt cannot be at two altitudes above the Giza horizon at the same moment.

Or can it?

The answer to this apparent paradox (and perhaps also the answer to the secret wisdom we suspect is encoded within the Freemason's Second Degree paradox) may lie in one of our most ancient world myths. It is an answer that is prevalent within the myths of just about every civilization and culture of the ancient world. It is a myth spoken of in numerous ancient texts, including the books of the Old Testament. This myth tells us in plain terms—and from many sources—that in remote antiquity the "sky fell," the stars moved out of their places, and chaos ensued.

And in those days, Noah saw the Earth had tilted and that its destruction was near.

—BOOK OF NOAH 65.1

The land turns around as does a potter's wheel.

—IPUWER PAPYRUS

The earth shall reel to and fro like a drunkard, and shall be removed like a cottage; and the transgression thereof shall be heavy upon it; and it shall fall, and not rise again.

—BOOK OF ISAIAH 24:20

And the stars of heaven fell unto the earth . . . and the heavens departed as a scroll when it is rolled together, and every mountain and island were moved out of their places.

—BOOK OF REVELATION 6:12–17

Therefore will not we fear, though the earth be removed, and though the mountains be carried into the midst of the sea; though the waters thereof roar and be troubled, though the mountains shake with the swelling thereof.

—BOOK OF PSALMS 46:2–3

Of course, if such an event did indeed take place in ancient times, it would not have been the actual sky that "fell." If Earth's polar axis made a sudden and significant shift, this would give the apparent illusion (from an Earth-based perspective) that the stars in the sky had moved out of their places; the sky would appear to have fallen into the horizon. Stars that once were viewed at a particular altitude above Giza would have moved, suddenly and instantly, to a new location as a result of such a dramatic tilt (and/or shift) of Earth's polar axis. On the other side of the world, the sun would seem to have suddenly moved to a new place in the sky, in some places causing day to instantly become night (an explanation, perhaps, to the paradox of the Second Degree of Freemasonry). Every country in the world would have moved position relative to the new positions of the fixed stars, and this would be followed by immediate and catastrophic climate change. And, of course, such a cataclysmic event would inevitably bring with it earthquakes and tsunamis the likes of which modern humans have never witnessed as Earth's oceans sloshed around in their basins, seeking their new equilibrium.

We hypothesize that the mean angular difference of around 6.5°—that key value we noted from the previous chapters—between the two southern shafts of the Great Pyramid (and also the two northern shafts) suggests that an axial tilt (and/or shift) of Earth's polar axis took place in remote antiquity, resulting in a latitudinal shift of around 6.5° at the latitude of Giza. The star Al Nitak on the southern horizon (represented by the Great Pyramid and its shafts) climbed suddenly and dramatically from a previous altitude of around 39° to around 45°. Of course, not all places on Earth would shift by the same amount. A latitudinal shift of 6.5° occurring at Giza could, depending on the nature of the displacement, have placed the North Pole in central Greenland, approximately 16° to 17° south of its present position. A geographic pole shift of this nature would have placed much of northern Europe and North America formerly within the polar region, whereas places such as eastern Siberia would have been positioned outside the polar region. Intriguingly, Stonehenge would have been positioned almost exactly on the boundary of the former polar circle. When the displacement occurred this could have shifted Europe and North America out of the polar region while shifting northeastern Siberia into the polar region. Alternatively, a simple tipping observed at Giza of around 6.5° (whereby the pole's obliquity changes but the pole keeps the same geographic location) may also have occurred with similar dire consequences.

Thus we can interpret that the southern shaft of the Queen's Chamber is registering the former (pre-tilt) angle of inclination of Al Nitak on the southern meridian at Giza, while the upper southern shaft of the King's Chamber is registering the new (post-tilt) angle of inclination of this star—a mean difference of around 6.5° as observed at Giza. So we can see that the shafts may not have been conceived for the purposes of directly targeting specific stars or guiding souls to those stars but merely as a means in which to record (through the inclinations of the shafts) the dramatically and instantly changed altitude of one star, Al Nitak, in Orion's Belt, and, in so doing, demonstrating a sudden and dramatic tilt of Earth's polar axis, resulting in Giza being shifted further south by some 6.5°.

As the reader will know, we have spent a considerable part of this book demonstrating how certain key angles are readily presented in the Great Pyramid. Thus we can now perhaps see and understand the significance of the angular values of 6.5° and 23.5° that we are presented with. It seems that Earth's polar axis may have simply tilted suddenly and dramatically (expressed at Giza by a latitudinal shift of some 6.5°). It may well be, however, that in conjunction with a simple tilt of the axis, a geographical shift of the pole from one geographic location to another also occurred. Regardless of the nature of the displacement, the end result would seem to have been an increased Earth polar axis angle of around 26.5° and a shift of Giza some 6.5° further south. Over time this increased obliquity would rebound back to a rotational axis of its present 23.5°.

If such a sudden and dramatic event did indeed occur in ancient historical times, might this then be the reason why we find such constant references to Earth's rotational axis throughout history in Masonic keystones and various other artifacts and works of art, as demonstrated in the opening of this book? Is this sudden and dramatic tilting of Earth's axis we find expressed in the shafts of the Great Pyramid perhaps a cyclical event, the knowledge of which may be known to the elite but hidden from the masses? And if we are interpreting this correctly, is it possible to know the timetable of such a cataclysmic cycle?

We will consider this question shortly, but for the moment let us return again to the star-shafts. What are we to make of the two mirrored northern shafts? After all, we only require to know the two positions (pre-tilt and post-tilt) of one star, Al Nitak in Orion's Belt, to determine by just how much Earth may have tilted (or may tilt again in the future), so why bother expending all the additional effort to incorporate the two mirrored northern shafts?

Well, as stated above, the two northern shafts—just like their southern counterparts—also demonstrate an approximate 6.5° difference between their angles of inclination, but with one very crucial and significant difference: the clever design of the northern shafts allows us to determine the direction of the axis tilt!

The Crossover

The reader will recall earlier that the mirrored upper northern shaft of the Great Pyramid (in the King's Chamber) does not in fact seem to mirror its southern counterpart in the King's Chamber—the inclinations of the shafts in this chamber at approximately 45° (south shaft) and 33° (north shaft). Yet the two lower shafts of the Queen's Chamber are perfectly mirrored, with both shafts being almost exactly the same at around 39° inclination. The reason for this seeming discrepancy is simple; if Earth's polar axis tilted in a counterclockwise direction, the northwestern hemisphere would rotate downward while its mirrored northeastern hemisphere would rotate upward (figure 8.4) with respect to the ecliptic plane.

This rotation or tilt of Earth's axis has a very peculiar effect on the heavens as we observe them from Earth. While a star such as Al Nitak on the southern meridian at an altitude of around 39° would rise to around 45°, the mirrored 39° altitude point in the northern sky would actually fall by an equal amount, to around 33° altitude.*7 Not only this, but by targeting the old and new positions of these mirrored points in the sky, we would find that the trajectories of the two northern shafts of the Great Pyramid, while demonstrating the same 6.5° difference (or thereabouts) in inclination as the two southern shafts, will cross over one another to reflect the old and new positions, but we would observe no such crossing over of the two southern shaft trajectories (figure 8.5). The significance of this crossing over of the northern shaft trajectories suggests that Earth's polar axis—if it did indeed shift—shifted in a counterclockwise direction—that is, Giza may have been tipped around 6.5° closer to the plane of the ecliptic. This would likely have the effect of bringing an instant and much drier climate to Giza—the very type of climatic event that Egyptologists believe brought about the collapse of the Old Kingdom period of ancient Egypt.

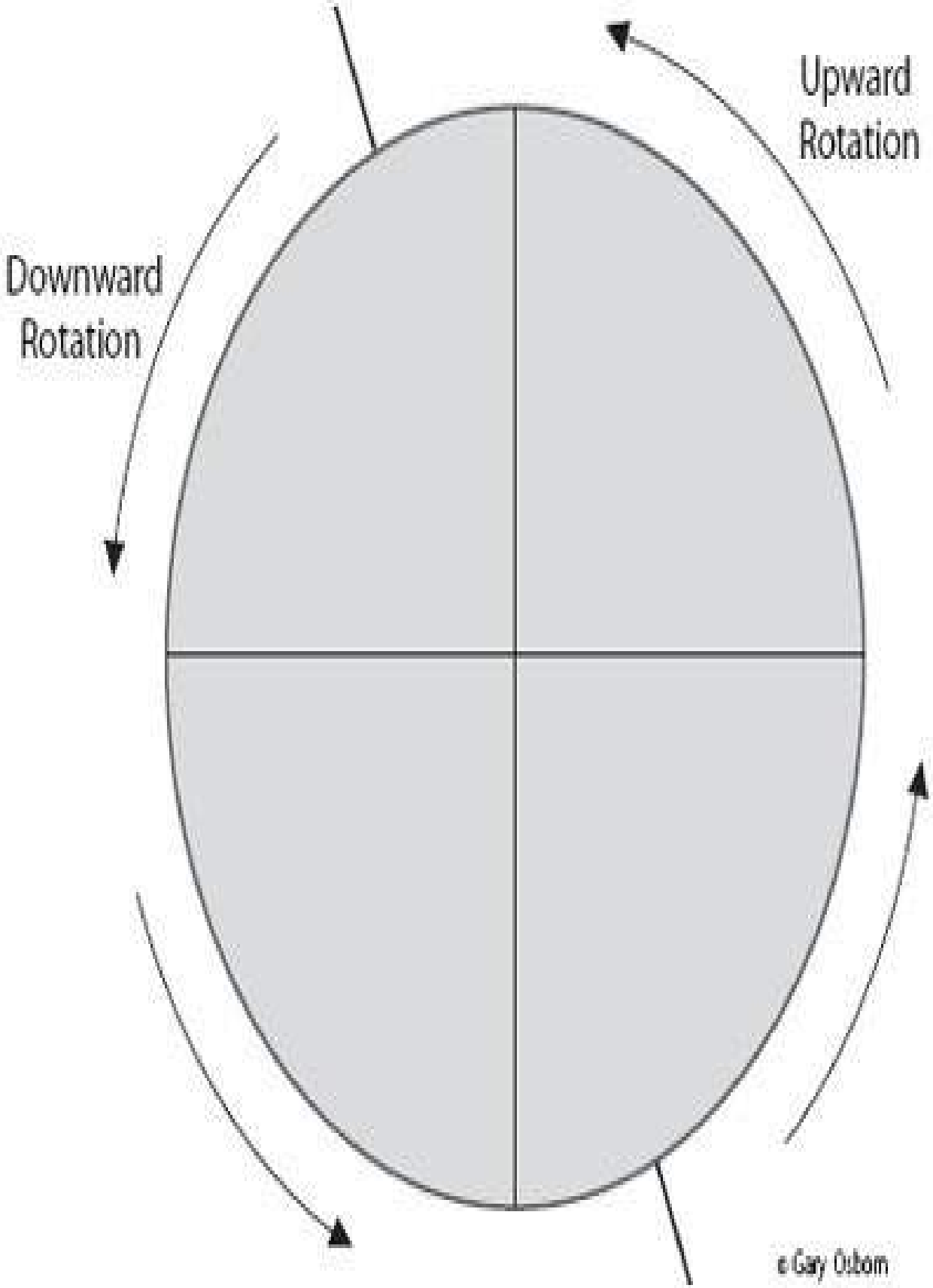

Upward
Rotation
Downward
Rotation
© Gary Osborn

Figure 8.4. The downward and upward rotation of Earth's hemispheres with respect to the ecliptic plane

Were the shafts of the Great Pyramid to have targeted four individual stars, as orthodox Egyptology proposes, this could just as easily have been achieved in the manner shown in figure 8.6, where no crossing over of the shaft's trajectories would have occurred. So why design the two northern shafts at angles that would ultimately have their trajectories crossing over?

The crossover of the northern shafts (figure 8.5) is the telltale signature (the natural outcome) one would expect to find by targeting the former location and new location of a particular point in the heavens, as would be the case with a sudden and dramatic tilt of Earth's polar axis. As previously stated, were the tilt of Earth's polar axis to have occurred in the opposite direction, we would have seen a crossing over of the shaft trajectories occurring in the two southern shafts of the Great Pyramid, while there would be no such crossing over of the northern shaft trajectories. It would seem that this simple detail of the shafts may indicate a north-to-south rotation (tilting) motion of Earth.

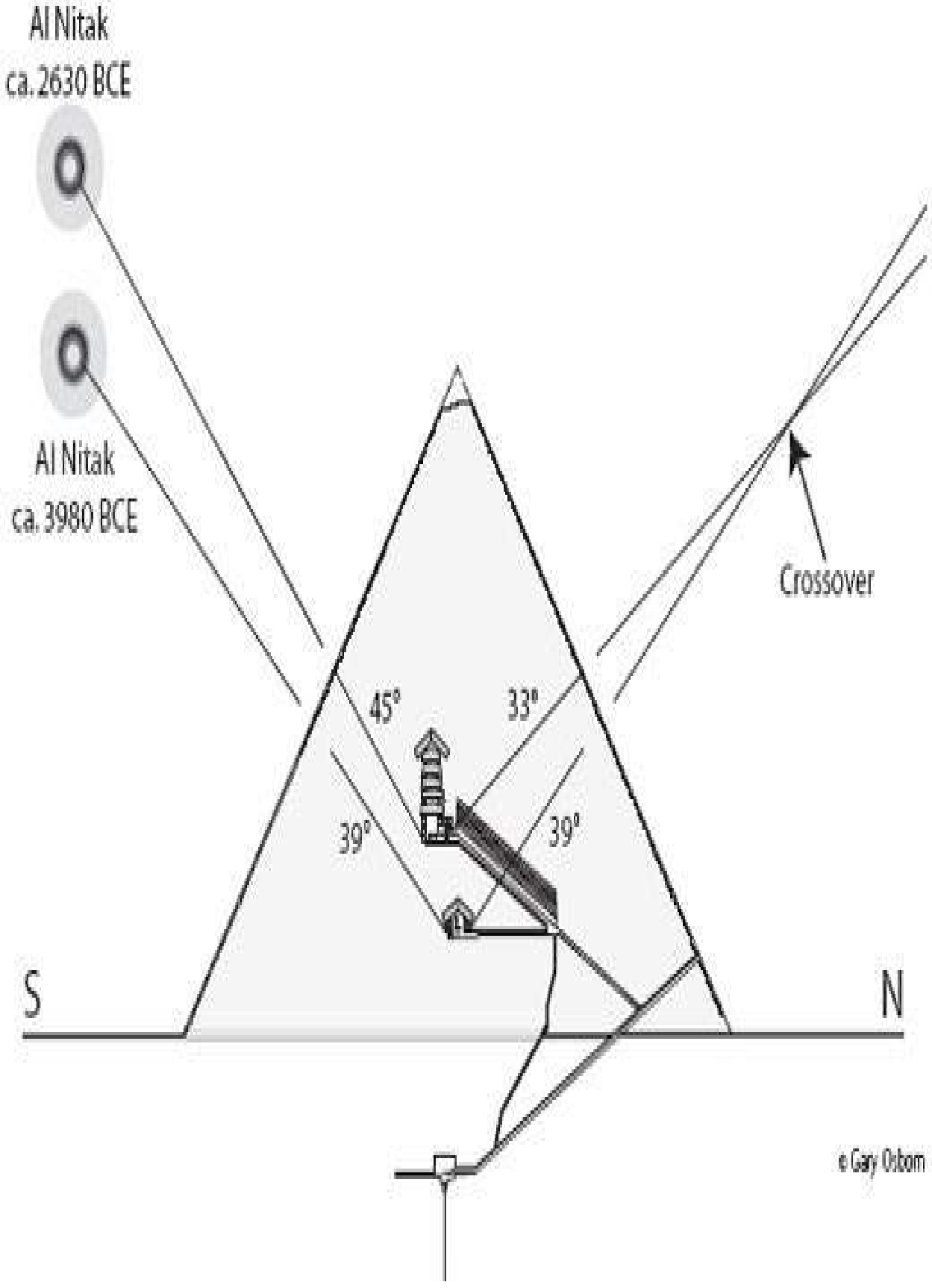

Al Nitak
ca. 2630 BCE
Al Nitak
ca. 3980 BCE
Crossover
45°
33°
39°
39°
S
N
© Gary Osborn

Figure 8.5. The crossover of the northern shafts

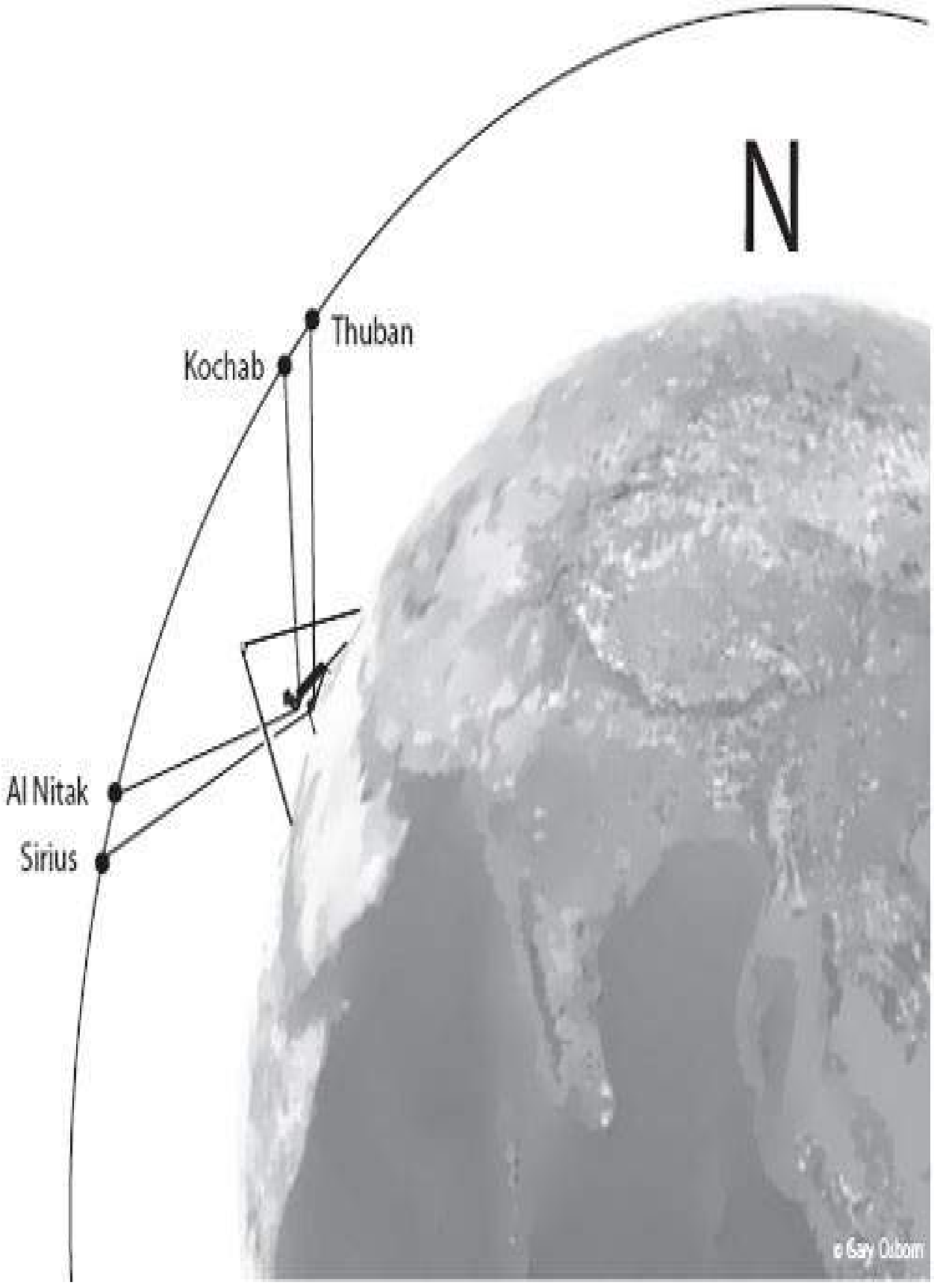

N
Thuban
Kochab
Al Nitak
Sirius
© Gay Osborn

Figure 8.6. The northern shafts could have been designed with no crossover.

Thus we may also find an explanation as to why the shafts in the so-called Queen's Chamber were symbolically sealed at both ends, failing even to reach the exterior of the pyramid. The symbolic message may simply be that the sudden and rapid shift of Al Nitak from its previous inclination on the southern meridian of around 39° to 45° means Al Nitak could no longer be targeted by the lower shaft at 39°; Al Nitak had shifted to a new place in the heavens, thus the lower shafts were perhaps symbolically sealed to reflect the star's departure. Effectively, the sealed lower shafts of the Queen's Chamber refer to the former position of Al Nitak (and its mirrored position in the northern sky), while the open upper shafts of the King's Chamber refer to the new position of Al Nitak (and its northern mirrored position). Knowing the old and new positions actually allows us to corroborate the direction of the tilt.

But could this really be the purpose for which the shafts of the Great Pyramid were built—to convey to us that Earth's polar axis can shift (by some 6.5° at Giza) that such a shift perhaps occurs at regular intervals (when Al Nitak in Orion's Belt reaches around 39° altitude), and that the most recent tilt occurred within the historical period? Is there any other evidence available to us that might support the controversial hypothesis that Earth's polar axis shifted and tilted in historical times when the star Al Nitak in Orion's Belt had reached an altitude of around 39°?

It would appear that there is.

Chapter 8 Summary

The four shafts of the Great Pyramid are believed by mainstream opinion to target four individual stars in the skies that were of religious importance to the ancient Egyptians ca. 2500 BCE. It is believed that the king required these shafts in order that his soul might be guided to its stellar destinations.

The shafts of the lower Queen's Chamber are of almost equal angles of inclination and differ by a mean of 6.5° from those of the upper King's Chamber, thereby suggesting that the king changed his mind as to the stellar destination of his soul.

Even though this change of stellar destination appears to have occurred—as indicated by the altered angles of the upper King's Chamber shafts—nevertheless, the king continued to construct the now-redundant Queen's Chamber shafts and continued to do so with the old and apparently now-redundant angle of inclination.

The Great Pyramid slope design can be shown to have been derived from the inclinations of the shafts, suggesting that the inclinations of the shafts may have been determined first and not—as is commonly believed—the slope of the Great Pyramid. This is to say that the Great Pyramid's slope may, in fact, be a consequence of the chosen inclinations of the shafts, which, in turn, were determined from the choice of targeting the star Al Nitak when it had reached an altitude of around 39°. This may then explain the peculiar seked of 5.5 Egyptologists believe was used to define the Great Pyramid's slope. It may in fact be that the underlying design imperative was the star Al Nitak at an altitude of around 39°, the slopes of the Great Pyramid merely being the complement of this angle.

The trajectories of the northern shafts of the Great Pyramid cross over each other, while the trajectories of the southern shafts do not. This is suggestive of the shafts having been designed to target the former position and new position of a particular star, Al Nitak in Orion's Belt—the stellar counterpart of the Great Pyramid—while mirroring the same points in the northern sky.

This, in turn, is suggestive of a tilt of Earth's polar axis (of around 6.5° at the latitude of Giza) having occurred at some time in remote antiquity when Al Nitak had reached an altitude of around 39°.

9

THE DAY EARTH FELL

We have spent some considerable time in this book detailing the various key angles within the Great Pyramid and examining them in detail. We have done so because we feel it is important that the reader understand the profound information that is perhaps being presented in these angles before we go on to explain the relevance of this information.

As revealed in the previous chapter, the 6.5° mean difference between the upper and lower sets of shafts inside the Great Pyramid—if recording the old and new inclinations of the same star (Al Nitak in Orion's Belt) at more or less the same moment—can only mean that a sudden and dramatic shift of Earth's polar axis (by some 6.5° at the latitude of Giza) had occurred in remote antiquity.

This is what we propose the architects of the Great Pyramid, its various chambers, and the wider Giza plateau monuments designed these structures to convey: that a rapid shift of Earth's polar axis (its obliquity and possibly also its geographic location) occurred in remote antiquity and that such rapid shifts may occur again in the future—the timetable of which is presented within the precessional cycle of Orion's Belt, within the layout of the Giza pyramids.

The values of the angles within the King's Chamber seem to be the key—23.5°, 20°, and 6.5°. Based on our interpretation of the two sets of shafts, also depicting the angle of 6.5°, the message here seems quite straightforward—Earth's former obliquity suddenly and rapidly increased to 26.5° (6.5° plus 20°, the final key

angle in the Great Pyramid) and relatively quickly rebounded upward again to an axial tilt of around 24 or 23.5°. As the obliquity was increasing to around 26.5°, the geographic location of the pole may also have shifted between 16° and 17° from central Greenland to its present position in the Arctic Sea. The net effect of these changes, as previously stated, was to shift Giza's latitude by around 6.5° farther south. Other Earth locations would also have shifted by varying degrees.

Of course, most orthodox scientists will immediately dismiss this hypothesis as preposterous, claiming that the prevailing Stockwell-Newcomb-Lieske model of Earth's changing obliquity could never allow for Earth's polar axis to oscillate beyond the parameters of 22.1° to 24.5° obliquity. They will also be quick to point out that the whole notion of the planet tilting so dramatically and within a very short period is simply absurd. And they would be correct, of course, if the accepted scientific model of Earth's changing obliquity was more than just a theory—which is all it is.

The fact of the matter is, there is a considerable body of evidence from the ancient historical past (which we will come to in a moment) that clearly shows that the obliquity of Earth in remote times was indeed—as we theorized previously—around 26.5°, an angle of obliquity that the present scientific consensus asserts simply could never have occurred—at least, not in the last several million years. As we have seen, this angle too (26.5°) is encoded a number of times within the Great Pyramid—being the angle from the center of the King's Chamber to the center of the Queen's Chamber. And let us remind ourselves here how this structure is, according to Freemasonic tradition, linked in some unknown way to the axis of Earth. If the shafts of the Great Pyramid and all the other key angular references do indeed relate to a shifting of the planet's axis in remote times, then it is hardly surprising that we would find Freemasons making such a connection. And we should perhaps take a moment here to consider the very ancient tradition from other sources that believed that Earth was once much more upright and that its present awkward tilt is something of an unnatural condition. Of this situation, professor Joscelyn Godwin writes:

As one can see from the simplest globe, the earth does not sit erect in its orbit around the sun, but tilts at an awkward angle of about 23½° from the perpendicular. Yet there is an oft-repeated story that our planet's situation was once far different; that it was a catastrophe that brought about its present state, and that some day it will be reinstated in the geometrical perfection of its origin. . . . Numerous authorities, who will be named later, assure us that in primordial times the earth was not tilted, but spun perfectly upright with its equator in the same plane as the ecliptic; or, which comes to the same thing, with its axis perpendicular to the plane of its orbit around the sun in exactly 360 days. Under these circumstances there would be no seasons of summer or winter, spring or fall; all days would be alike. Near the equator, the climate would always be hot; near the poles, always cold. The distribution of sea and land (surely far different from today's) might affect the temperatures of certain regions, as the Gulf Stream now makes the climate of Northern Europe milder than that of other places in the same latitude, such as Newfoundland of Moscow. Lands high above sea-level, likewise, would be cold, as mountains always are. But the climate of every zone would be uniform throughout the year. Plants would sprout, blossom, seed, and die in obedience only to their innate rhythms. The characteristic vegetation of every land would always be present, in every state of its life-cycle, thus providing food all year round for whatever creatures might need it. . . . Some may feel that all this is mere hypothesis: interesting as an imaginative exercise, but not grounded in historical certainty, much less in scientific proof. Rather than dismissing it as a wild speculation about prehistory, such readers should consider it as a Platonic Idea of how the earth "ought" to be—knowing well that the geometrical perfection of the ideal realm is unattainable in the corporeal world. Perhaps it is not even an attractive picture, used as we are to creatively dealing with the world's imbalances and disharmonies. Real or ideal, however, it must be accepted that this is a recurrent hypothesis in the history of ideas, and that those who have held it command a hearing.[1]

The idea of Earth's polar axis changing rapidly (its obliquity and possibly also its geographic location), plunging Earth into periods of catastrophe with dramatic climatic changes as its hemispheres are tilted toward and then away from the sun's rays, has been around for a very long time, and esteemed scientists and other researchers have written countless books on the subject.

For some considerable time, however, modern science has maintained that Earth's polar axis simply cannot be shifted in the sudden manner we propose, as the stabilizing force of Earth's equatorial bulge is simply too great a force to overcome. We are told it would require an object of similar mass to Earth itself to collide with our planet in order to knock it off its present rotational axis. Of course, the aftermath of such a scenario would have rendered the planet completely devoid of life. Such has been the scientific consensus for a very long time.

In more recent times, however, scientists have found that strong earthquakes and tsunamis can indeed instantly alter the angle of Earth's polar axis, admittedly by amounts too small as to be of any significance, and certainly nowhere near the amount required to significantly alter the climatic zones of the planet.

The work of Dr. Flavio Barbiero, however, presents an entirely different way of looking at this issue and shows that, even with a relatively small asteroid striking Earth, the poles can theoretically tilt and change their geographic position in a sudden and quite dramatic fashion and in a manner that can easily overcome the stabilizing force of Earth's equatorial bulge.

It is beyond the scope of this book to present a detailed analysis of Dr. Barbiero's work, but, suffice it to say, it presents—probably for the first time—a theoretical model and mechanism whereby a rapid reorientation of Earth's poles and, therefore, its climatic regions could indeed come about. Dr. Barbiero writes:

The behavior of the Earth when subjected to a disturbing torque is obviously the same. In fact the Earth has a movement of precession due to the disturbing torque exercised by the Sun-Moon gravitational attraction on the equatorial bulges. This torque is one million of times smaller than the maximum reaction torque which can be developed by Earth. Simple calculations, however, allow us to establish that an object as small as a half-kilometer-wide asteroid, hitting the planet in the right spot and at the right angle, is capable of developing an

impulsive torque of the same magnitude of the maximum Earth reaction torque. In this case the Earth assumes, for a very short instant, a different axis of rotation.

If at the moment of the impact the force of the Sun-Moon gravitational attraction on the equatorial bulge has the same direction as the force developed by the impact, a shift of the poles will inevitably follow. Immediately after the impact, in fact, the torque should go down to zero, and the Earth should recover its previous rotational axis. But if the torque exerted by the sun-moon attraction has the same direction, the torque cannot be zeroed and therefore the Earth keeps "memory" of the impact and of its direction. This "memory" consists of an extremely small rotational component, with the same direction as that of the impact, in the order of 1 millionth of the normal rotation. What is particular in this rotational component is that it is fixed with respect to the Earth. If the latter was a solid gyroscope, this situation would last indefinitely unchanged. The planet, however, is not homogenous and rigid. First of all it is covered by a thin layer of water, which reacts immediately to any change of motion. Second, even the "solid" outer shell is in reality plastic and can be easily "re-shaped" by centrifugal forces.

Under the effect of this tiny rotational component, sea water begins to move towards a circle perpendicular to that rotation (the new equator). This is a very small effect, and if it was the only component, the resulting equatorial bulge would be of a few meters only. But as this happens, the value of the rotational component increases, at the expense of the main rotation, therefore increasing the centrifugal force which makes more water move towards the new equator, thus increasing the force and so on. This process starts very slowly, but accelerates progressively, until the centrifugal force developed by this rotational component grows strong enough to induce deformations of the Earth's mantle.

From here on the equatorial bulge is quickly "re-shaped" around the new axis of rotation and Earth will soon be stable again, with a different axis of rotation and different poles.[2]

While Dr. Barbiero's work demonstrates how it is theoretically possible for Earth's poles to shift from one geographic location to another and likely with a changed obliquity (as opposed to a simple tipping of the existing geographic pole), the end effect is essentially the same—the various climatic zones of Earth would change.

Pole Shift ca. 3980 BCE: The Smoking Gun

THE DODWELL DATA

It seems that the shafts of the Great Pyramid indicate that a shift (in obliquity and possibly also of location) of Earth's polar axis occurred when Al Nitak in Orion's Belt reached an altitude of around 39° on the southern meridian. That this shift occurred in recent historical times seems to be supported by the extraordinary research of former Australian astronomer and mathematician George F. Dodwell.

After decades of intensive research, Dodwell had gathered together a mountain of data pertaining to the former obliquity of Earth that he had gleaned from numerous ancient sources, including Manilius, Hipparchus, Thales, Pythagoras, Eratosthenes, Eudoxus, and Pytheas, as well as ancient Hindu and Chinese sources, complemented further still by a host of temple and henge alignments he had recorded. Upon analysis of this data, what Dodwell found was that these ancient sources demonstrated that Earth's obliquity was, in recent historical times, tilted at an angle of 26.5° (or thereabouts), an angle of obliquity that our present science insists could never have been in that time period.

As we have shown, the angle of 26.5° is repeatedly presented within the cross-sectional angle geometry of the Great Pyramid. The Ascending and Descending Passages are close to this angle—being 26.3°—and both the King's and Queen's chambers are centered on the angle of 26.5°. In addition, there are 26.5 course layers between the floor of the Queen's Chamber and the King's Chamber, as if emphasizing the significance of this angle by providing its checksum.

We also know that the two sets of shafts in the Great Pyramid seem to indicate that a shift of 6.5°—as observed at the latitude of Giza—may have occurred in remote historical times. However, a geographic shift of the pole occurring simultaneously with a changing angle of obliquity makes it almost impossible to determine what the previous preshift obliquity of Earth might have been. What we can feel reasonably certain of is that Earth's obliquity tilted from a lower obliquity (possibly 20°, this being the north vertex angle within the Great Pyramid to the King's Chamber) to around 26.5°, whereas an observed latitudinal shift of around 6.5° appears to have been observed at Giza.

Most scientists dismissed Dodwell's findings as simply the result of faulty measurements of Earth's obliquity having been made by the ancient astronomers and saw little reason to look any further into the matter, a situation exacerbated by Dodwell's death in 1963, whereupon his extensive research fell into obscurity.

We would counter the claim of faulty measurements having been made by demonstrating that ancient astronomers as far back as the ancient Babylonians could very easily make highly accurate observations of Earth's obliquity; all that is required, as explained in chapter 1 of this book, is a perfectly vertical pole or obelisk that is set true vertical by the use of a simple bob line (see figure 1.5 on page 17).

Given that the procedure is so simple, it is inconceivable that the ancient astronomers could have gotten their measurements so wrong using such a simple and straightforward technique. However, Dodwell persisted and plotted the various measurements of Earth's obliquity that he had obtained from all these ancient sources onto a graph. The result was astonishing.

By plotting the various obliquity measurements over time, Dodwell instantly realized that the curve created by these measurements meant that the ancient data he had amassed was in fact highly accurate, since it created a perfect logarithmic

sine curve—an outcome that simply could not have been achieved through the collection and plotting of random or error-ridden measurements. In short, this curve validated the accuracy of the ancient observations of Earth's former obliquity. Furthermore, the steepness of the sine curve was also of great significance and was immediately recognized by Dodwell as the clear and unmistakable signature of a "rebound curve" (figure 9.1).[3] By back-projecting this sine curve, Dodwell was able to determine that the sudden tilt of Earth to an obliquity of 26.5° had occurred around the year 2345 BCE.

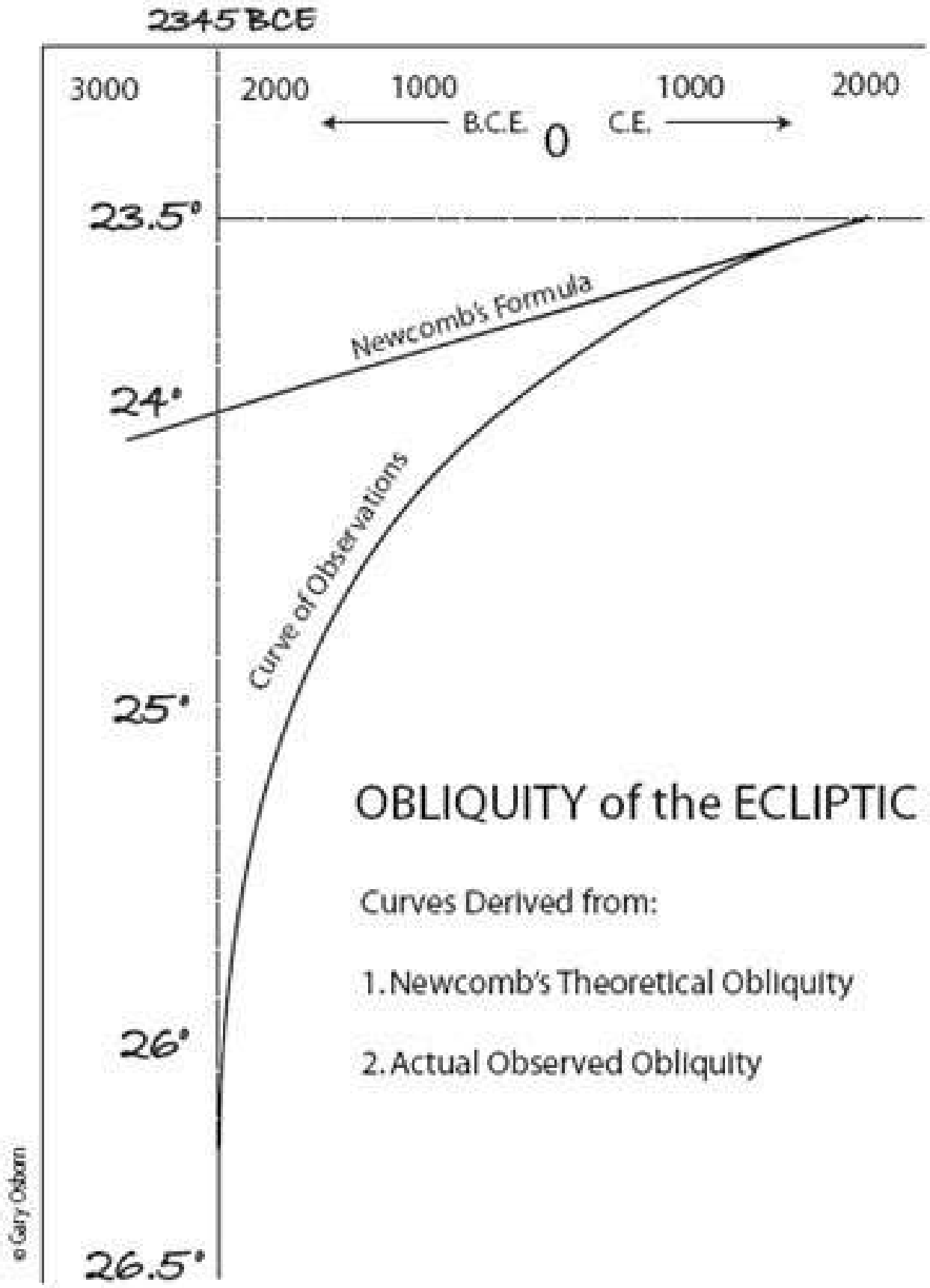

2345 BCE
3000
2000
1000
B.C.E.
0
1000
C.E.
2000
23.5°
Newcomb's Formula
24°
Curve of Observations
25°
26°
26.5°
OBLIQUITY of the ECLIPTIC
Curves Derived from:
1. Newcomb's Theoretical Obliquity
2. Actual Observed Obliquity
© Gary Osborn

Figure 9.1. The Dodwell obliquity sine curve shows an ancient obliquity of 26.5°, as indicated by ancient sources. The top linear line shows the theoretical back-projected Earth obliquity. The gap between the two lines indicates some disturbance in Earth's obliquity that Dodwell dates to around 2345 BCE.

At first, this date of ca. 2345 BCE seemed to conflict quite considerably with the ca. 3980 BCE date to which we find the Sphinx aligned on the Orion precession time line that we observed in chapter 3 (figure 3.10 b), as well as the ca. 3980 BCE date indicated also by the 39° inclination of the shafts of the Queen's Chamber, targeting Al Nitak in Orion's Belt at around 39° altitude about that time.

This seemed a considerable blow to our hypothesis of a former Earth tilt having taken place ca. 3980 BCE, as seemingly indicated by the encoded dates we had found on the Precession Time line and in the Great Pyramid's shafts.

But then the penny dropped.

This apparent conflict—this great difference in time is but an astronomical illusion. In reality, these two dates—our hypothesized date for the tilt at ca. 3980 BCE and Dodwell's date of ca. 2345 BCE—though seemingly separated by around 1,600 years may in fact have been separated in reality by as little as a single day (or perhaps a decade or so). They are essentially the same date (more or less). But how can this possibly be? How is it possible that two dates separated perhaps by as much as 1,600 years come to be at the same moment in astronomical time? Again we are reminded here of the paradox of the Second Degree of Freemasonry: How is it possible for the sun to indicate two different times from the same location at (more or less) the same moment?

The answer may be startlingly simple. A sudden shift of Earth's axis in ca. 3980 BCE seems to have resulted in a loss of astronomical time (precession time) on the order of between 1,350 and 1,600 years! That is to say, precession time (at Giza) was advanced instantly by anything between 1,350 and 1,600 years.

In other words, if this sudden tilt occurred in a single day, then effectively these two ancient astronomical dates may have been separated by as little as a single day—or less! So, although the Sphinx is aligned to the midpoint of the Giza-Orion time line, this alignment point instantly became much closer (though not perfect) to the astronomical date presented by Dodwell. Given, however, that Dodwell's date for the axis shift (occurring ca. 2345 BCE) relies on the sine curve with only one very ancient observation of the obliquity (from the Temple of Karnak), we feel it is prudent—as the examples given in the following section will show—to consider that the loss of astronomical time was somewhat less than 1,600 years and probably nearer to 1,350 years. As such, Dodwell's date of ca. 2345 BCE for the axis shift then comes much closer to our own post-tilt date of ca. 2630 BCE as indicated by the southern shaft of the upper King's Chamber of the Great Pyramid. And this loss of astronomical time is precisely what some of the world's most ancient structures also appear to demonstrate.

We saw earlier in this book how Dodwell showed that the solstice alignment of the Sun Temple of Karnak in Egypt is apparently out of kilter with the date of its historical use, calculated by Dodwell to be in error by around 1,600 years. Dodwell further demonstrated that the ancient Greek astronomer Eudoxus of Cnidus made observations of Earth's obliquity around the year 350 BCE that simply did not fit models of Earth's axis back-projected from modern times. For the Eudoxus data to match modern back-projections requires his observations (according to Dodwell) to be shifted by around 1,600 years into the past, to ca. 1900 BCE. Again, we find this approximately 1,600year discrepancy from what our modern software calculates Earth's axis to have been against actual observations and measurements made by the ancient astronomers and temple builders.

Stonehenge is another case in point, presenting—once again—this seemingly missing astronomical time. George Dodwell explains:

Sir Norman [Lockyer] then goes on to say that "on account of the slight uncertainty as to the original line of observation, and the very slow rate of change in the obliquity of the Ecliptic, the date thus derived to be in error by 200 years more or less; this gives us a date of construction lying between, say, 1900 and 1500 B.C." He therefore adopted the mean date of 1700 B.C. as the probable date of the foundation of Stonehenge. . . . With regard to the surprising discrepancy of between 1300 and 1400 years in the astronomical date of Stonehenge found by Sir Norman Lockyer . . . the explanation is contained in the complete breakdown of Newcomb's and Stockwell's Formulae, by themselves alone, to give the true place of the Sun in ancient times. On the other hand, we must take into consideration the fact that the new Curve of the Obliquity does supply this deficiency which, added to these standard formulae, enables them to fulfill all the requirements of history and archaeology.[4]

In the example given above, Lockyer's mean date of 1700 BCE for the original construction of Stonehenge is 1,350 years before 350 BCE, the date Dodwell believes was the true date of the site's reconstruction under the Druidic king Belinus. Given Lockyer's findings we feel it is reasonable for us to assume here that the axis shift resulted in an average loss in astronomical time of 1,350 years. The reader should keep in mind, however, that it is uncertain exactly how many astronomical years were lost as a result of the axis shift; it may be more or it may be less.

What this lost astronomical time means in terms of the Giza-Orion precession time line, which indicates the preshift date of ca. 3980 BCE, is that this date was instantly shifted to ca. 2630 BCE (3980 BCE – 1,350 years). This date would find Al Nitak instantly shifted to almost exactly 45° altitude on the southern meridian—the very same altitude of the upper southern shaft of the King's Chamber of the Great Pyramid. This concordance is unlikely to be a

coincidence. Interesting also is that it is around this time, 2630 BCE, that Egyptologists tell us the great pyramid-building age of ancient Egypt began in earnest with the construction of the first giant pyramid, the Step Pyramid of Djoser at Saqqara.

An instant loss of astronomical time of around 1350 years could easily have accounted for the anomalous ivory tablet heralding the heliacal rising of Sirius found by Eduard Meyer and which he dated to ca. 4241 BCE. Egyptologists felt compelled, however, to bring the dating of this artifact forward one full Sothic cycle (around 1,500 years) to 2781 BCE in order that it could correspond with their chronology for the reign of King Djer around 3100 BCE. The truth of the matter, however, may be that the reign of King Djer did indeed witness the astronomical heliacal rising of Sirius at the time proposed by Meyer, but that an instant loss of around 1,350 years in astronomical time has conspired to confuse and displace the artifact from its true astronomical time.

As stated previously, what is particularly notable about our date of ca. 2630 BCE (ca. 3980 BCE pre-tilt) is that it corresponds very well with the commencement of the pyramid-building age of ancient Egypt, a period that was almost immediately followed by a period known as the First Intermediate Period, which Egyptologists believe commenced ca. 2200 BCE. As we have stated previously, during this period the Old Kingdom of Egypt (and other cultures and civilizations of the Early Bronze Age III period around the world) suddenly and inexplicably collapsed, most never to recover. The reason for the demise of these once-great civilizations is invariably given as sudden and dramatic climate change (decades of severe drought)—the kind of sudden climate change that would naturally result from a sudden and dramatic tilt of Earth’s polar axis.

Of course, if the Old Kingdom of ancient Egypt and other Early Bronze Age III cultures collapsed as the result of a cataclysmic tilt of Earth’s polar axis, why was it that only the ancient Egyptians were able to reestablish themselves and to continue as a civilization not too dissimilar to their precollapse civilization, while most other cultures and civilizations at that time largely faded from

history?

To answer this question, we will have to now consider the ancient Egyptian concept of the afterlife and what this idea may originally have meant.

Chapter 9 Summary

Numerous ancient sources have recorded that the obliquity of Earth's polar axis was once greater than conventional models of Earth's orbital mechanics state it could possibly have been, confining Earth's maximum and minimum obliquity at 24.5° and 22.1°, respectively, over a cycle period of around 41,000 years.

It is believed by conventional science that these ancient observations of Earth's obliquity presented by astronomer George F. Dodwell were simply the result of flawed observations made on the part of the ancient astronomers, since modern science maintains that it is impossible for Earth's polar axis to shift suddenly and rapidly without disturbance from a massive external force, which would, in turn, eliminate all life on the planet.

The research of Dr. Flavio Barbiero shows how it is entirely possible for a relatively small asteroid to bring about a rapid shift of Earth's polar axis while keeping the planet perfectly viable for life, although much would be lost as the result of sudden climate change, earthquakes, volcanism, and tsunamis.

Dodwell proved the veracity of the ancient observations by plotting a graph using the ancient data. This produced a perfect logarithmic sine curve that verified the ancient observations, since it is unlikely that random or wrong observations could produce such an outcome.

Dodwell also noticed that the sine curve was the signature curve of a rebound of Earth's polar axis, which he back-projected to have fallen to around 26.5° around the year 2345 BCE.

This obliquity angle agrees with our findings within the Great Pyramid, which presents the 26.5° angle in a number of its internal features.

The sudden and dramatic latitudinal shift of around 6.5° (as observed at Giza) resulted in a loss in astronomical time of between 1,350 and 1,600 years, thereby causing astronomically aligned markers to appear in error, including the Giza-Orion time line.

This means that the two sets of shafts of the Great Pyramid essentially point to the same date—ca. 3980 BCE (Queen's southern shaft giving the astronomical pre-tilt date) and ca. 2630 BCE (King's southern shaft giving the astronomical post-tilt date). It means also that the Great Sphinx, while being aligned to ca. 3980 BCE on the Giza precession time line, is also indicating ca. 2630 BCE with this same alignment—the date of Earth's axis shift. This phenomenon may explain the paradox of the Second Degree of Freemasonry.

It is around 2630 BCE (ca. 3980 BCE pre-tilt) that Egyptologists and other scientists tell us that the great pyramid-building age of the Old Kingdom of ancient Egypt began—a kingdom that, having successfully built numerous massive pyramids, suddenly and inexplicably collapsed a few hundred years or so later (according to mainstream chronology), as did most other Early Bronze Age III cultures at that time. It is believed that sudden climate change may have been responsible for this collapse. Sudden climate change would be an expected result of a sudden and dramatic tilt of Earth's polar axis.

While most of these cultures seem to have disappeared from history after this catastrophe, ancient Egypt was somehow unique in this regard in that it was able to rise from the ashes of its destruction, reestablish itself, and continue as an interrupted civilization.

10

THE AFTERLIFE MACHINE

Preparing for the Afterlife

What are we to make of all this information? How can we synthesize all that we have presented in this book into a coherent narrative, into a plausible alternative hypothesis for the pyramids that might better explain their existence and purpose than is presently achievable with the conventional tomb theory?

We have seen over the course of this book how the pyramids of Giza can be shown to conform to a preconceived, unified, homogeneous plan, the underlying influence of which seems to be the Belt stars of the Orion constellation. This observation alone would seem to provide compelling evidence that the pyramids at Giza simply could not have been conceived as a series of tombs, since it would be impossible for the planner to have known 100 years in advance precisely how many pyramid tombs were needed. We cannot emphasize this point enough; a preconceived plan eliminates the possibility that the great Giza pyramids could have been conceived as tombs. It seems to us that the true (original) function of the early giant pyramids may be found elsewhere.

We noted also that the two sets of so-called Queens' Pyramids demonstrate the two culminations of the Belt stars and that the placement of these culmination markers at each end of the Lehner line (the time line) presents a functional precessional clock, a linear clock with the Great Sphinx precisely aligned to its midpoint, the timing of which is governed by the 26,000-year precessional motion of the Belt stars—13,000 years in one direction and 13,000 years in the opposite direction.

And what we really should not lose sight of here is that the structures at Giza can be shown to work well as a precessional clock and that the structures there represent all the requisite components such a complex astronomical clock would require for it to properly function in this capacity—all of which, once more,

must cast some considerable doubt on the veracity of the tomb theory. We simply do not consider it at all feasible that all of these prerequisites that are essential to establish a functional precession clock could have possibly come together in the way that they have through mere coincidence.

Let us try and put this into some kind of perspective: to achieve this level of complexity in the Giza precessional clock by random chance alone would be akin to a tornado passing through a scrapyard and randomly constructing a fully functional Big Ben—a highly unlikely scenario. And yet the structures at Giza can be shown to operate as a sophisticated precessional clock with the unique marker of the Sphinx (the clock "hand") indicating the midpoint on the clock, a point that happens also to have been a significant time in the history of ancient Egypt, a time that also seems to have coincided with the commencement of the great pyramid-building age.

All this, in our considered opinion, is the hallmark of deliberate design, a design conceived by a civilization in possession of a science that was far more advanced than that generally attributed to the ancient Egyptians of this period.

We also discovered that the two sets of shafts within the Great Pyramid seem to indicate a dramatic shift in the latitude of Giza by up to 6.5° and that the rebound effect of this rapid shift of Earth's obliquity (up to 26.5°) can be demonstrated by a series of ancient recordings of the rapidly changing obliquity of Earth and also from the alignment of ancient monuments to the solstices. In particular, the work of Australian astronomer and mathematician George F. Dodwell shows how these ancient observations and alignments—made over thousands of years—conform to a logarithmic sine wave, such as would be expected from the rebound effect of a sudden and significant tilt of Earth's rotational axis.

In presenting our alternative view of what actually occurred in ancient times and the true purpose of the early giant pyramids—with special regard to those at Giza—we have to offer a plausible and viable answer to a number of anomalies

in the orthodox tomb theory. In short, we have to provide plausible alternative answers to the following:

Why such enormous pyramid structures were built

Why some pharaohs built multiple pyramids

Why most of the giant pyramids have multiple chambers

Why the pyramids contained sarcophagi

The purpose of the shafts in the Great Pyramid

The purpose of the unique concavities running up each face of the Great Pyramid and Menkaure's pyramid

The purpose of the Sphinx.

In presenting our alternative view as to the original function of the giant pyramids, we must be cognizant of the ancient Egyptian religious beliefs that are closely associated with the pyramid, with special consideration of their afterlife beliefs. It is our considered opinion that the religious beliefs of the ancient Egyptians may offer us a clue to understanding the true nature and perhaps the original function of the Giza pyramids (and all other giant pyramids of the early dynastic period of ancient Egypt).

What seems reasonably clear from the evidence we have presented in this book is that something truly catastrophic occurred around the year 2630 BCE (ca. 3,980 BCE pre-tilt date). From what we can extrapolate from this information, it seems that the nature of this catastrophic event was perhaps connected to a sudden and dramatic tilt and shift of Earth's rotational axis, the effect of which would eventually bring about the collapse not just of the Old Kingdom of ancient Egypt, but of other cultures in the Near East and beyond, such as the Akkadian empire. What is quite remarkable, however, is that the ancient Egyptian civilization—unlike most others—was somehow able to recover from this catastrophic event and, like a phoenix, eventually managed to revive itself from the ashes of its demise.

But how was it that ancient Egypt was able to achieve this rebirth when most other cultures at this time could not? What was it that ancient Egypt perhaps did that these other cultures did not? The answer may be staggeringly simple: after Earth had suddenly tilted the ancient Egyptians may have believed that a catastrophe would follow and, in anticipation of the coming calamitous event, prepared themselves for it through the construction of massive pyramids or—as we prefer to think of them—recovery vaults, a national recovery system that was designed to secure the recovery or revivification of the kingdom in the event of its potential destruction after the sky had fallen.

But these structures—the giant pyramids—may have been more than just super-storage facilities or recovery vaults. While the pyramids served this vitally important function as recovery vaults, the planners of this national recovery system may also have sought to ensure that future generations of their civilization could also have the means to know the timetable of this catastrophic cycle. And so—in the very arrangement of the structures at Giza—the designers seem to have cleverly presented an astronomical clock or timetable that would give their descendants the ability to anticipate and prepare themselves (in the same manner their ancestors had done) for these calamitous times. And by such means, the kingdom of Egypt could endure for all eternity.

And it stands to reason, of course, that in selling the construction of such a mammoth undertaking to the people who would, after all, have to build these giant pyramids, it would have been a much simpler matter to explain that their very survival and that of their children depended on the successful implementation of these structures. They were building a recovery system to ensure that they themselves had a chance of survival and not merely the king. Thus it is understandable how the entire population would have been motivated, galvanized behind the “phoenix project” to ensure its eventual success.

As recovery vaults, all the giant pyramids would have been packed with all manner of items that would aid the recovery of their civilization after the calamity had fully unfolded (and we know that it ultimately did with the collapse of the Old Kingdom). Typically, we should expect that they would have packed every chamber within every pyramid with tools, pottery, crop seeds (barley, wheat, etc.), clothing, oils, weaponry, and, last but by no means least, their sacred texts and other important documents.

What is remarkable is that examples of all these items have indeed been recovered from the Egyptian pyramids. In this regard, should it be any surprise to us that we find the throne name of Khufu, Mddw, which translates roughly as “he who gives—goods to his people,”[1] was found alongside Khufu’s birth name in the hidden relieving chambers of the Great Pyramid? And, in one gallery below the pyramid of Djoser at Saqqara, no less than forty thousand artifacts were recovered, mostly pottery filled with large amounts of seeds including emmer wheat, barley, grape, and others! We can only surmise that when the pyramids were eventually opened and emptied of their contents, this particular gallery was perhaps overlooked or its life-giving cache was deemed to be superfluous. Around the perimeter of Djoser’s pyramid complex numerous other seed stores can be found above and below ground.

The reponse by mainstream commentators to explain such finds within the pyramids is that these items would have been required for the king’s use in his

afterlife. We know, however, from much later pyramids and rock-cut tombs such as that of Tutankhamen that only small, symbolic quantities of these items were placed in these tombs for use in the king's afterlife and certainly nowhere near the large quantities found in Djoser's pyramid and surrounding complex. It certainly seems that the ancient Egyptians knew the difference between that which was to serve purely on a symbolic level and that which was to serve on a practical level.

But as well as having highly protected recovery vaults deep within or under the pyramids, there may also have been additional underground vaults around the perimeter of the other pyramids. Indeed, to the west of G2 (the pyramid attributed to Rachaf), archaeologists have found a series of massive underground galleries (around seventy of them) that are believed in mainstream opinion to have been built as storerooms for goods for the king's afterlife. Our view is much more pragmatic; these galleries may indeed have been storerooms, but they were perhaps built as part of the national recovery system for the afterlife of the kingdom—a practical use rather than a symbolic use.

Naturally, it would make sense to place such underground recovery vaults as close to the pyramids as possible so they could easily be discovered, the Giza pyramids in this regard serving as markers or beacons to draw attention. And this, of course, might help explain the so-called provincial pyramids that were built with no internal chambers at all. In our view, it is quite feasible that these chamberless pyramids may simply have been built to serve as beacons (cairns) marking the locations of underground galleries or recovery vaults, just like the underground galleries we find beside G2.

Of course, should these external underground galleries have been compromised by—for example—a massive flood, the internal chambers of the giant pyramids would still have their recovery cache intact, the giant pyramids having been built strong enough to withstand just about any major natural disaster.

We may also be able to explain the Grand Gallery within the Great Pyramid, a feature of this pyramid that mainstream opinion struggles to adequately explain, as a recovery vault. The Grand Gallery is effectively a continuation of the narrow Ascending Passage but opened up on a massive scale, with a high vaulted ceiling. Why the narrow Ascending Passage did not continue all the way up to the King's Chamber and is interrupted by the Grand Gallery is something of a mystery. The belief is that this massive gallery, which presented a greater building burden than the King's Chamber itself, was merely constructed to hold a few granite plugs (we will discuss these in more depth shortly) that would eventually be slid into place at the lower end of the passageway to seal the pyramid. Presumably, the builders within somehow managed to exit by some other secret means.

The curious notches that line the floor at regular intervals on either side of the gallery, along with the grooves high up on either wall of the gallery, are perhaps indicative of a racking or storage system of some sort having once been in use. Other curious aspects of the Grand Gallery include the granite plugs at the bottom of the Ascending Passage and the three portcullis slabs that once apparently blocked the entrance to the King's Chamber (within the Antechamber) at the top of the Grand Gallery.

One must question why it was deemed necessary to block the entrance to the King's Chamber with three limestone slabs when access to this chamber—which is located at the top end of the Grand Gallery and Ascending Passage—is effectively already blocked with the massive granite plugs at the foot of the Ascending Passage. After all, we do not find any evidence of such a feature—three limestone slabs—ever having blocked the entrance to the Queen's Chamber, the entrance to which is essentially blocked only by the aforementioned granite plugs at the bottom of the Ascending Passage. So what was it about the King's Chamber that seemingly required this chamber to be sealed at the top of the Grand Gallery as well as at the bottom of the Ascending Passage with the granite plugs (at what is essentially the bottom of the Grand Gallery)?

The answer may be startlingly simple: the airshafts—or, more specifically, air! These three slabs may have been set in place at the top of the Grand Gallery to minimize air escaping from the open airshafts of the King's Chamber into the Grand Gallery. As such, it could then be reasonably argued that these three limestone slabs should not be regarded so much as protecting the entrance to the King's Chamber from intruders (which is essentially already blocked and protected with the much more imposing granite plugs further below) but rather may have served to seal what is essentially the opening at the top of the Grand Gallery. We noted earlier that the shafts of the Queen's Chamber do not open into the chamber, nor do they penetrate the pyramid's exterior, so no air could possibly pass from this chamber into the Grand Gallery. Hence there would have been little need to build an Antechamber with these limestone blocking slabs to seal the Queen's Chamber (or to restrict airflow from this chamber into the Grand Gallery).

If our analysis here is correct, the question that now arises is why: why would it be so important to minimize air escaping from the King's Chamber into the Grand Gallery? What is it about air that made the builders seem to go out of their way to restrict its flow into and within the Grand Gallery?

Well, one quality of air is that it carries moisture and can cause temperature to vary. If you wished to preserve, say, some sacks of wheat, barley, or other seeds, the most important thing you simply must do is reduce the exposure of your seeds to fluctuations in temperature and moisture—in other words, you must restrict airflow. A dry, stable temperature within a dark environment will prevent seeds from germinating (or rotting), thereby ensuring their longevity. In addition, to minimize the risk of possible damage from water penetration, it is best to construct such a storage system with a sloping floor so that any residual water can drain off. Thus we find that the dark, sloped Grand Gallery of the Great Pyramid is effectively hermetically sealed and, as such, would provide an ideal facility for the long-term storage of seeds, protecting them from potentially harmful elements.

As for the great granite plugs that seal the entrance to the Ascending Passage at its lower end, what are we to make of these? Curiously, recent detailed studies of the Grand Gallery have revealed a number of anomalies that lead us to conclude that the granite blocks were not, in fact, stored in the Grand Gallery before being slid into place after the King's body was laid to rest. Curiously, what this new evidence seems to suggest is that the massive granite sealing plugs were built in situ! In this regard, Petrie writes, "There is a bit of granite still cemented to the floor some way farther south of it. . . ."[2]

John and Morton Edgar further inform us:

Professor Petrie says he saw a bit of granite still cemented to the floor two feet further up the passage. We, also, saw what for some time we took to be a piece of granite at the place indicated; but on more careful examination it proved to be a lump of coarse red plaster. We saw several similar pieces of plaster adhering to the angles of the floor and walls throughout the length of the passage, and we required to clear some of them away as they hindered careful measuring. We also saw at least one such piece of plaster in the Grand Gallery . . ."[3]

Given the very narrow clearance of the three granite plugs within the Ascending Passage, this plaster still adhering to the floor and walls throughout its length would surely have caused the granite blocks to jam. Such obvious obstacles to the successful sealing of the pyramid would most assuredly have been noticed and removed before any attempt was made to slide the granite plugs into place, since failing to do so would have resulted in disastrous consequences for the builders—and the king. That these potential obstacles were not removed suggests that they did not have to be removed, and the logical conclusion one must draw from this is that the granite plugs were already in place at the bottom end of the passageway.

Now, as a tomb for a king, this makes absolutely no sense whatsoever. How exactly is the king supposed to enter his eternal tomb if it has already been

sealed before his death? As a recovery vault, however, this makes perfect sense. This would be the entrance you hope survivors would find and break through. It has to be made secure, of course, to prevent casual looting of the vaults. However, before the Grand Gallery (and the other chambers) are sealed at the top of the pyramid, it is from here that you would fill the various chambers and galleries with the essential recovery items. You then seal these chambers at the top by lowering the granite portcullis slabs into position and continue building up the pyramid to its completion.

One additional thing that might be helpful to any survivors is the provision of a map that indicates precisely where the entrance to the pyramid vault is to be found. This map may in fact be what Egyptologists describe as the Trial Passages. These are to be found slightly to the east of the Great Pyramid and are a series of passages hewn into the bedrock at Giza that mimic in smaller scale the main passageways of the Great Pyramid itself.

Of course, the architects of this hypothetical recovery system (the “afterlife machines”) would realize that the structures they planned to build would have to be of monumental size, large enough, in fact, for them to be noticed for miles around and strong enough to withstand the full impact of any significant major Earth event. But why not simply build underground chambers or chambers dug deep into a natural mountain?

Because if they had done this—and only this—they could never be sure that their recovery vaults would be found soon enough after any calamity for them to be of any use, for them to make the difference between the death or the survival of the people and of the kingdom. If they had placed the recovery vaults deep into a natural mountain, people could wander by them for generations (and longer) without ever having the slightest inkling that there might be anything of use or value held within; there would be no natural instinct to go and dig into a natural, inconspicuous mountainside.

If, on the other hand, you constructed man-made mountains on high plateaus that were so massive, so highly visible, and so obviously artificial, then you would most definitely succeed in attracting the attention of people for miles around; such highly visible man-made structures would have been easily noticed and found. And that may in fact have been the entire point of the pyramids. They may have been designed so massively that people would easily find them and be naturally curious about them; the designers of any recovery system would want people (survivors) to easily find their recovery vaults and make use of the items stored therein to ensure that the eventual revivification of the kingdom was made possible after its demise.

Now we well understand that this hypothesis (for that is all we present) of pyramids as recovery vaults is the complete antithesis to what would be expected of the conventional tomb theory. With the tomb theory we are expected to suspend our disbelief and abandon our common sense and accept that these massively visible structures with their numerous chambers and galleries were built in plain sight to preserve for all eternity the mortal remains of one person—the king. Conventional thought holds on to the opinion that the king built these massively visible structures for the eternal protection of his mortal remains, even though basic common sense would have told him that advertising the precise whereabouts of his mortal remains to every low-life thief in the land who knew how to use fire and water (thermal shock) on limestone blocks, or who was familiar with quarrying techniques, was most definitely something to be avoided.

We are further expected to accept that these kings apparently built these massively visible structures thinking that they would never be robbed, even when they would have been fully aware of such robberies happening to other less-important tombs. Does this make sense? Or is it more sensible to consider the alternative and quite radical hypothesis we advocate here, that the pyramids were built so large for the very reason that they would be so highly noticeable, thereby ensuring the rebirth of the kingdom (and not merely the king)?

As well as explaining the multiple chambers within the pyramids (after all, the

more storage capacity within the vaults the better), the recovery vault hypothesis may also help explain the conundrum of the multiple pyramids built by Khufu and Khufu's father, Sneferu. Again, the more storage capacity, the better. And, it goes without saying, but such a massive undertaking would clearly have required the combined effort of many generations to fully implement such a plan.

As evidenced by Sneferu's multiple pyramid-building projects (four in total), the first thing the planners would have had to do before implementing the key component of the hypothesized recovery system—Giza—was to learn how to construct large, stable structures. We can see this trial and error in all the giant pyramids built by Sneferu and his predecessors until, eventually, the ancient Egyptians finally managed to succeed in building large, stable structures—the Red Pyramid at Dahshur.

In this, the world's first true pyramid, the planners would have found the largest and most stable structure they could possibly build, and once they had perfected this craft, they could implement their astronomical clock and/or recovery system—their afterlife machine—at Giza. They would, of course, make use of the giant pyramids they had already built up to this point as storage and/or recovery vaults—the more vaults the better. This may explain Sneferu's desire not to dismantle his failed pyramids but rather to continue on in their construction beyond their point of failure: they were never intended as his tomb but as recovery vaults that would be seen for miles around.

We hypothesize, however, that Giza may in fact represent the key element of the entire recovery system, for while the Giza pyramids would have served as recovery vaults in the same manner as all the other giant pyramids, these particular structures—without doubt the finest pyramids in all Egypt—seem also to have served as an astronomical clock or calendar that would allow their descendants to know the precise timetable of this deadly Earth calamity and perhaps also the next date of the cycle. More on this shortly.

But what about the so-called sarcophagi that have been found in most—though not all—of the giant pyramids? If, as we hypothesize, the early giant pyramids were not and could have been conceived and built as tombs, then what possible purpose could these stone boxes have served if they were not for the purpose of receiving the mummified body of the king? What might the true original purpose of these sarcophagi have been within the recovery system?

It is interesting that around the beginning of the Middle Kingdom of ancient Egypt—which followed the relative Dark Age of the First Intermediate Period—we start to find coffin lids adorned with spells and other sacred writings that were supposed to assist the deceased's soul in reaching the ancient Egyptian afterlife. On the basis of this, it is not unreasonable to consider that the most sacred texts (and other important historical texts) of the architects and builders of these structures were placed inside these stone boxes, covered over with a lid, and sealed—their sacred texts safely secured within the stone box, a reliquary and centerpiece of the main storage chamber. In this way the survivors of any calamity would be able to open these reliquaries, recover the (pyramid) texts, and learn of their ancestry, understand their history, and know their gods. They might even—in later times—come to write these ancient texts inside their own coffin lids (where the original texts were possibly found) and inscribe them also on the walls of their own tombs in homage to their forebears, who had ensured through this grand scheme, the revivification—the afterlife—of the kingdom.

And, of course, this practice of storing precious documents within stone containers (reliquaries) and hiding them deep inside mountain caves (or pyramid chambers) was not an uncommon practice in ancient times. The Dead Sea Scrolls, for example, were found in a sealed stone vase in a mountain cave in Qumran, placed there for safekeeping probably during times of crisis or calamity. Of course, the Dead Sea Scrolls took thousands of years to be recovered, for the very reason that they were stored in a natural, inconspicuous mountain cave; no one had any reason to suspect there might be anything of value inside the mountain cave. Imagine, however, if the Dead Sea Scrolls had been placed inside a stone reliquary within a chamber inside a man-made mountain (i.e., a pyramid) built on a high plateau (for increased visibility). Well, it is likely that in such circumstances, the Dead Sea Scrolls would have been

found thousands of years sooner, since we would undoubtedly have found such massive structures very quickly and would naturally feel compelled to investigate their interiors, just as explorers and others have been doing ever since the pyramids were first built.

There is yet another possible use for these stone containers, one for which there is some evidence from the ancient Egyptian culture, albeit of a controversial nature.

The Osiris Bed and the Apis Bull

As the terrestrial embodiment of the stars of Orion's Belt, the Giza pyramids essentially could be seen as symbolizing the "body of Osiris"—the great striding man of the Orion constellation. Osiris is the ancient Egyptian god of rebirth and/or regeneration believed by the ancient Egyptians to have taught them the skills of farming and agriculture. It should be little surprise then to find that this body of Osiris (i.e., the pyramids) would have been packed full with the means for the kingdom to regenerate or revivificate itself in the event of any natural cataclysm.

If this were indeed the case then it is not unreasonable to expect that such a concept (i.e., the body of Osiris filled with seeds and other recovery items) would, over time, permeate through Egyptian culture and manifest itself in a variety of ways. In the Festival of Khoiak, for example, effigies of Osiris were made that were filled with wheat, barley, or corn seed and bound with wrappings. At the end of this festival, the seed-packed Osiris bodies were placed in a grave and buried. In other instances a mud-brick box (sometimes made of granite) was filled with earth (normally Nile mud) and seeds sown into the stone container known as an Osiris Bed (figure 10.1) creating an outline of the god. The growing seeds within such containers would be seen as the revivification of Osiris and demonstrate the universal life-force of nature—that aspect of the soul the ancient Egyptians called the Ka. In this case, at the end of the festival these stone containers filled with earth and seeds would be buried. According to Plutarch, sacrifices to Osiris were "gloomy, solemn, and mournful."[4] The festival, which commemorated the god's death and was celebrated in two phases, started on the seventeenth of Athyr (November 13). The celebrants would plant the grain into the ground on that same day. "The death of the grain and the death of the god were one and the same: the cereal was identified with the god who came from heaven; he was the bread by which man lives. The resurrection of the god symbolized the rebirth of the grain."[5] Part of the festival was the building of Osiris Beds. These soil-filled beds were built in the shape of Osiris and then sown with seed. When the seed germinated, it was considered a symbol of Osiris

rising from the tomb.

Rituals of Wheat and Clay

In addition to the public rituals, priests in the temples performed private, esoteric rituals. Often these rituals were only seen by initiates. Plutarch mentions that two days after the beginning of the festival,

the priests bring forth a sacred chest containing a small golden coffer, into which they pour some potable water . . . and a great shout arises from the company for joy that Osiris is found (or resurrected). Then they knead some fertile soil with the water . . . and fashion there from a crescent-shaped figure, which they cloth and adorn, this indicating that they regard these gods as the substance of Earth and Water.[6]

According to Larson:

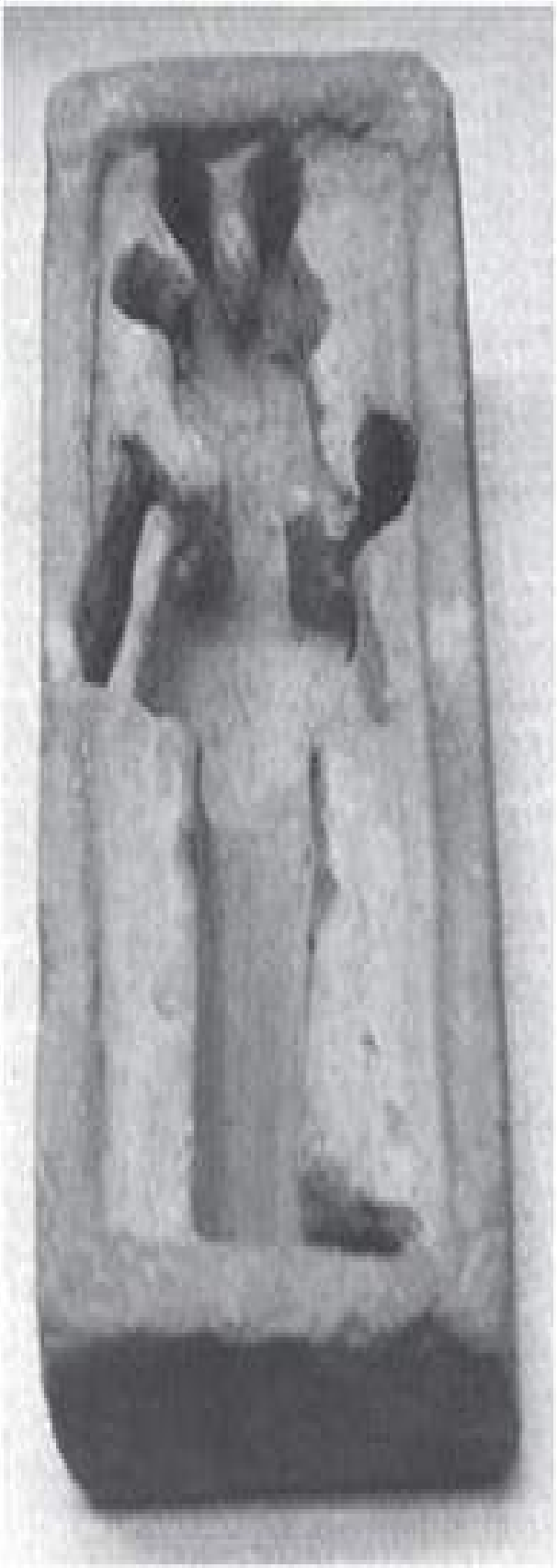
In the Osirian temple at Denderah, an inscription (translated by Budge, Chapter XV, Osiris and the Egyptian Resurrection) describes in detail the making of wheat paste models of each dismembered piece of Osiris that was to be sent out to the town, where each piece was discovered by Isis. At the temple of Mendes, figures of Osiris were made from wheat and paste [that had been sown into a mould in the shape of Osiris made of Nile silt] placed in a trough . . . then [as the seeds grew and the figure of Osiris sprouted forth from the silt, it was] taken to the temple to be buried. Moulds were made from the wood of a red tree in the forms of the sixteen dismembered parts of Osiris, the cakes of divine bread were made from each mould, placed in a silver chest, and set near the head of the god with the inward parts of Osiris as described in the Book of the Dead (XVII).

On the first day of the Festival of Ploughing, where the goddess Isis appears in

her shrine where she is stripped naked, paste made from the grain were placed in her bed and moistened with water, representing the fecund earth. All of these sacred rituals were climaxed by the eating of sacramental god, the eucharist by which the celebrants were transformed, in their persuasion, into replicas of their god-man.[7]

In his book Death and the Afterlife in Ancient Egypt John H. Taylor further tells us:

The god Osiris was closely associated with vegetation, and particularly with germinating grain. The emergence of young growth shoots from the fertile mud of Egypt was regarded as a powerful metaphor for human resurrection, and this notion was given physical form in Osirian images and figurines in which earth and corn were basic constituents. Some royal tombs of the New Kingdom contained an “Osiris bed,” a seed bed in a wooden frame or on a piece of textile, made in the shape of Osiris. This bed was planted with barley, which germinated in the tomb, symbolizing the renewal of life for the dead king via the agency of Osiris. A similar concept underlay the creation of “corn mummies,” figurines composed of earth or mud mixed with grains of barley and fashioned into a miniature mummiform image of Osiris. These figures were manufactured in an elaborate temple ritual during the month of Khoiak, and then buried in areas with sacred associations. . . .[8]



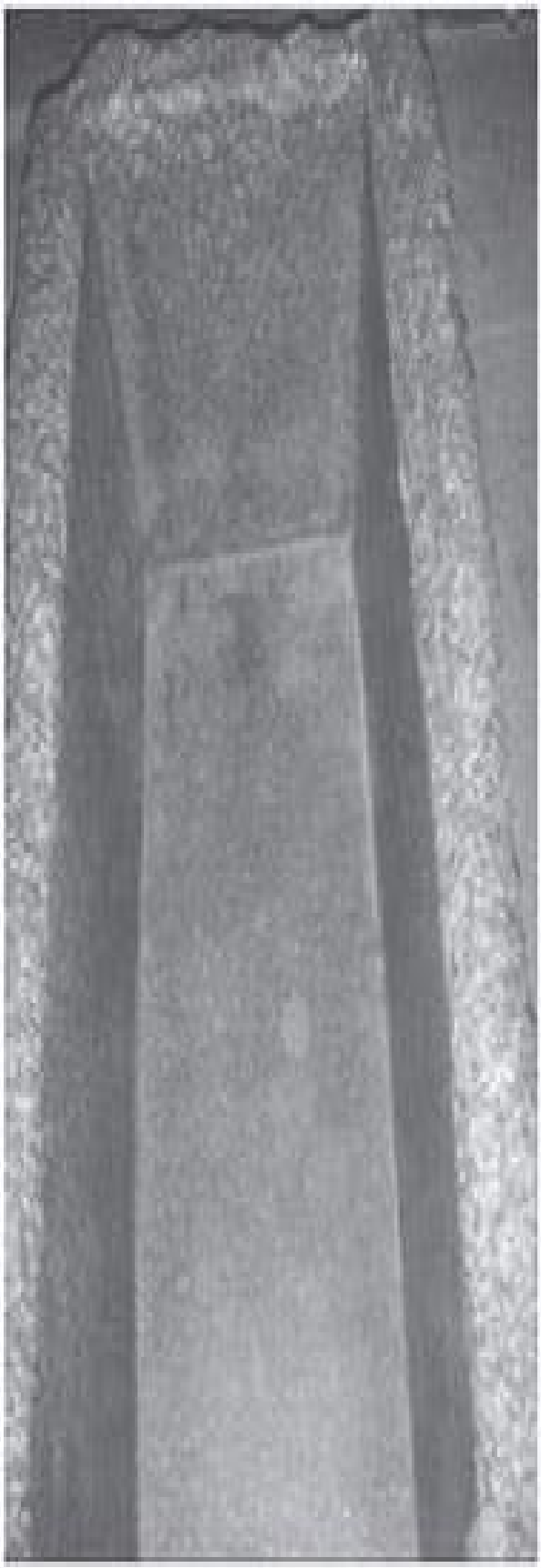


Figure 10.1. An Osiris Bed (left) with Great Pyramid Sarcophagus (right); image rendition by Lise Williams.

These Osiris Beds symbolized the forces of life and regeneration, the life-force of nature. They are believed to have first appeared later in Egyptian history and certainly long after the construction of Giza. However, within the context of recovery and/or seed vaults, it is not unreasonable to speculate that the stone containers within the giant pyramids attributed to the Old Kingdom period may in fact have served as the archetype of the later Osiris Beds, that these stone containers within the chambers of the giant pyramids may also once have been filled with earth and sown with seeds in honor of the god Osiris. This is to say that as Osiris Beds, the so-called sarcophagi in these pyramids may never in fact have been intended to hold the remains of an Egyptian king at all but rather to hold an earth-and-seed effigy of the rebirth and regeneration of the god Osiris. As such, then the placement of an Osiris Bed container (filled with earth and seeds) within the body of Osiris, that is, the giant pyramids, could have been symbolic of placing the life-force—the ka—of Osiris within his "body."

But if the ka aspect of the soul was symbolically placed in the giant pyramids (the body of Osiris), then it stands to reason that we should also expect to find another important aspect of the human soul believed by the ancient Egyptians to coexist along with the ka. This is known as the ba and can be likened to the individual's personality, that aspect of a human being that makes them unique. In ancient Egyptian religious thought, the ba of a particular deity would sometimes be represented by an animal, and, in this regard, the Apis bull was seen as the ba of Osiris. So, if we consider the giant pyramids as representing the body of Osiris, might we not then expect to find within one of the pyramids the ba of Osiris, that is, an Apis bull?

Intriguingly, as mentioned briefly in chapter 2, the bones of a bull were indeed found within the black-and-pink, granite sarcophagus of the pyramid at Giza (G2) attributed to Rachaf. Of these curious remains, Dr. Mark Lehner writes:

Belzoni having rediscovered the entrance to the upper passage system made his way in this chamber in 1818 but found to his disappointment that he was not the first to enter it in the post-pharaonic times. Curiously, bones found in the sarcophagus turned out to be those of a bull. In a much later period bulls were buried as symbols of the pharaoh himself or Osiris. Rainer Stadelmann has suggested that these bones were probably an offering thrown into the sarcophagus at some unknown later date by intruders, long after the king's body had been robbed and lost.[9]

As far as we can determine, these bull bones have never been dated so it is perhaps somewhat presumptuous that Lehner and Stadelmann should take the view that these bones could not have been the original content of the sarcophagus within G2. Certainly, if one views these stone containers as sarcophagi to hold the body of a king then it seems a reasonable assumption that the human remains must have been replaced with the bones of a bull at some point in the past. However, within the context of the pyramid as a recovery and/or seed vault and that the giant pyramids represent the body of Osiris, it makes perfect sense that the burial of a bull might indeed have taken place, that these bones might indeed have been the original burial, the symbolic archetype burial of the ba of Osiris placed within the body of Osiris, just as an earth-and-seed container in the Great Pyramid would represent the ka (life-force) of Osiris. Of this association, the Egyptologist Wallis E. A. Budge writes:

After his death Apis fused with Osiris, becoming the composite god Apis-Osiris or Osirapis (and later, in Hellenistic times, the anthropomorphically depicted god Serapis). In this context the living Apis bull itself was sometimes called the ba of Osiris, and the process of assimilation with other deities also led to the composite Osiris-ApisAtum-Horus. In some funerary texts, Apis was said to thresh the grain in the afterlife. . . .[10]

Here we find that the Apis bull is clearly identified with Osiris, the ancient Egyptian god of rebirth and regeneration, the god who—it is said—taught the

ancient Egyptians the ways of farming and agriculture. We are told also that the Apis bull would thresh the grain.

In time, of course, long after the giant pyramids had served their purpose as recovery and/or seed vaults, providing the people with the essentials to reboot their civilization after its collapse, the pyramid structure itself would naturally come to be the iconic symbol of the rebirth or revivification of the kingdom. And this is precisely how the later ancient Egyptians would come to regard the pyramids—as rebirth or revivification devices (albeit, as the king became more closely associated with Osiris, for the religious revivification of the king rather than the practical revivification of the kingdom).

It may be that the original purpose of the Giza pyramids had become corrupted and/or embellished over time to become a shadow of its former self: the rebirth or revivification machine of the king as opposed to the kingdom, the transformation device through which the king could become an Akh and ascend into the afterlife. In our view, however, it is equally probable (if not more so) that the original concept of the first giant pyramids was to serve as recovery vaults, conceived and built (as the symbolic body of Osiris) to enable the revivification of the kingdom after it seemed doomed to destruction after a sudden and dramatic tilt of Earth.

We do not consider it an accident or a coincidence that the most prominent ancient Egyptian god, Osiris, whose stellar depiction is the constellation of Orion, was regarded by the ancient Egyptians as their god of rebirth and regeneration, because this is precisely what the Giza pyramids actually did: laid out like Orion's Belt, their very dimensions derived from the Belt asterism, these incredible structures secured the revivification of the ancient Egyptian civilization, sustaining it through the collapse of the Old Kingdom into its first Dark Age of the First Intermediate Period and into a new dawn—the Age of Ra.

As noted earlier in this book, the pyramids built in later periods seem to be of

very inferior quality and craftsmanship compared with the first giant pyramids of the Golden Age. The reason is probably quite straightforward. The giant pyramids (particularly Giza) were built to last, to be durable so that they might withstand a looming natural disaster that the ancients believed would befall their nation. The much smaller, inferior pyramids of the later Middle Kingdom period were probably built merely in homage to what the Giza pyramids ultimately came to represent—the continuity of life, or the afterlife.

And as the Giza Pyramids may have ensured a continuity of life (an afterlife) for the survivors of the calamity that began with a shift of Earth's polar axis ca. 2630 BCE (ca. 3980 BCE pre-tilt date), so the Middle Kingdom pyramids would come to ensure an afterlife for the king—a religious belief born out of a much more basic and practical necessity, an afterlife machine that might literally have saved their civilization from complete obliteration, structures that perhaps ensured a revivification of the ancient Egyptian civilization.

And it is probably no accident either that the most sacred stone in ancient Egypt—the pyramid-shaped Benben stone of ancient Heliopolis—was associated with the Bennu bird, which the ancient Egyptians regarded as having similar mythical qualities to the phoenix in being reborn from the ashes of destruction in a never-ending cycle of death and rebirth. In the pyramid form, there could be no more potent symbolic representation as to the true and original function of these massive structures of the Golden Age; like the pyramid-shaped Benben stone, they were perhaps the means to ensure the rebirth and revivification of the land from the ashes of destruction.

Cycles of Lost Knowledge

It is easy to understand why the planners and builders of Giza might wish to mark (with the Sphinx) the midpoint on the precessional time line, the date ca. 3980 BCE (ca. 2630 BCE post-tilt), as it was at this midpoint in the Orion cycle that their civilization was suddenly placed in great peril as a result of a sudden and relatively rapid polar-axis shift. This date, which ushered in the great pyramid-building age, would have been of monumental importance. It is like placing a message in a bottle, a voice from ancient times reaching out to the future to tell us the precise moment when their civilization seemed doomed, when the gods who held up the sky had abandoned them. However, from our research (as we will shortly demonstrate), it may be also that the ancient Egyptians had knowledge of former cataclysmic events of a similar nature since there seem to be two other possible dates encoded in the precessional time line at Giza. More on this in a moment.

But if such were in fact true, where did the ancient Egyptians obtain the knowledge of this seemingly forgotten cycle of calamity? Alas, we will probably never know this with any certainty. What does seem clear, however, is that in their most ancient texts (the Leiden Papyrus) the ancient Egyptians actually wrote how their god Thoth would destroy their civilization by inflicting on it a massive flood:

I am going to blot out everything that I have made. This Earth shall enter into (be absorbed in) the watery abyss of Nu (or Nunu) by means of a raging flood, and will become even as it was in primeval time. I myself shall remain together with Osiris, but I shall transform myself into a small serpent, which can be neither comprehended nor seen. . . . One day the Nile will rise and cover all Egypt with water, and drown the whole country; then, as in the beginning, there will be nothing to be seen except water.[11]

Could this enigmatic text along with the sudden axis shift have been the great motivator for the construction of a massive recovery system—a flood promised by one of their own gods that was destined to destroy them all? Certainly a sudden and dramatic shift of Earth's axis would have resulted in seas and oceans being displaced all around the world, including Egypt. Might the ancient Egyptians have interpreted this shift event as the work of Thoth and realized that a great flood might soon be sent forth to destroy their civilization, thus prompting the implementation of the pyramid recovery system we hypothesize?

It has been mentioned earlier in this book that the Great Pyramid was known in ancient times as Akhet Khufu (supposedly meaning the "horizon of Khufu"). But as we already noted, the word Khufu translates as "protects" and the word Akhet can also be interpreted as "flood" (the flood season). Within such a context it is not unreasonable to translate Akhet Khufu (the Great Pyramid) as "Flood Protector" or "Protector (from the) Flood."

The words of the ancient Egyptian priests—as related to Solon of ancient Greece—also hint at knowledge of a cyclical, natural Earth cataclysm:

> And whatever happened either in your country or in ours or in any other region of which we are informed—if there were any actions noble or great or in any other way remarkable, they have all been written down by us of old and are preserved in our temples.
>
> Whereas just when you [Solon] and other nations are beginning to be provided with letters and the other requisites of civilized life, after the usual interval, the stream from heaven, like a pestilence, comes pouring down and leaves only those of you who are destitute of letters and education, and so you have to begin all over again like children and know nothing of what happened in ancient times, either among us or among yourselves.[12] (emphasis ours)

Here we have an ancient Egyptian priest informing Solon of ancient Greece that Earth is subjected to a massive flooding event and that this event occurs “after the usual interval”—in other words, a cyclical event. In another part of this text, Solon is told that this event has in fact occurred many times before and that the survivors are generally those shepherds and herdsmen high up in the hills and mountains—people of little education, people “destitute of letters and education.” Again we might presume: If the ancient Egyptians knew that such an event had happened to them previously and it had reduced their civilization to ruin, and if they then had reason to believe a similar event was occurring, it is entirely understandable (perhaps even predictable) that they might wish to take steps to prevent the complete collapse of their civilization as perhaps had happened before and to ensure that survivors could kick-start their civilization.

We can only imagine the horrors a rapid tipping of Earth’s polar axis might bring. Initially, oceans would be displaced from their basins, resulting in global flooding and tsunamis on a biblical scale. And then, as the ice-bound latitudes were tipped nearer the sun, the great ice sheets that once covered these areas would go into rapid meltdown, causing the oceans to rise rapidly. Some of these rises would be sudden and catastrophic as great glacial dams holding back entire seas of fresh water were suddenly breached, sending forth torrents of water into Earth’s oceans, resulting in other environmental disasters, with the Great Atlantic conveyor belt shutting down and instantly bringing glacial periods back to certain regions of the globe.

Around the world we find that other civilizations seemed to possess knowledge of a long-term cycle of natural catastrophe. The ancient Maya of South America also tell of times when Earth enters into a period of calamity, which some commentators on the ancient Mayan calendar have calculated would occur approximately every 5,850 years from one occurrence to the next. The Maya further tell us that each of the four previous ages of their civilization was destroyed in this recurring calamity. Again we must ask, where did the ancient Mayan civilization obtain the knowledge of this unknown cycle of Earth?

Again, we will probably never know. It may simply be that the ancient Maya understood—perhaps from having firsthand experience—that a particular configuration of the heavens presented a sign of impending disaster and that the knowledge of this recurring sky configuration was passed down orally in the form of myth. It is entirely possible that the ancient Egyptians may independently have learned of the same cycle through their observation of the heavens and may in fact have taken measures to encode the timetable of this cyclical event into the layout of the Giza recovery vaults (just as the ancient Maya may also have done something similar with their long-count calendar).

We demonstrated previously how the Great Sphinx (known as the Father of Terrors) is aligned to the midpoint of the Giza-Orion time line (Lehner line) and that this midpoint date on the time line would be around 3980 BCE (ca. 2630 BCE post-tilt)—a time that heralded great terror in ancient Egypt and elsewhere. And it may also be the case that—if our interpretation of the evidence is correct—this cataclysmic event may occur (or there may be a heightened danger of it occurring) at a specific time, the midpoint, within the precessional half-cycle of the Giza precessional time line, marked by the Sphinx. This is not to say that such an axial tipping event will always occur at this particular time within the precessional cycle of Orion's Belt, only that whatever catalyst may trigger it reaches a critical mass at that time. Which brings us to the most important question of all—when might we expect the next event to occur? When will the Orion Belt stars next reach the crucial midpoint of their precessional cycle?

Given what we have so far observed, simple calculations allow us to determine that we will not reach this midpoint of the Giza precessional time line again until ca. 8980 CE. Thus it would seem that there are around 12,960 years between each potential tipping event—one precessional half-cycle. This date of ca. 8980 CE represents, in our view, the most likely date when Earth will face its next greatest risk, when the catalyst event that may result in a tilt of Earth's axis—whatever that catalyst may be—will have reached its most critical phase.

We feel it is appropriate at this point to make our position on these findings

absolutely clear. We are categorically not predicting that Earth will tilt on its axis ca. 8980 CE. What we are suggesting is that the catalyst event that seemingly resulted in this particular scenario occurring last time in ca. 3980 BCE may next manifest itself in ca. 8980 CE. The axis shift that we suggest occurred last time around 3980 BCE may simply have been but a one-off, unfortunate consequence of the main catalyst event, a chance occurrence whereby a particular configuration of Earth, sun, and moon dynamics perhaps combined with the catalyst to bring about such dire global consequences. It may be, for example, that the catalyst event is an increased bombardment from space by asteroids and/or meteorites and that one such bolide just happened to hit Earth's ocean at just the right angle and speed to result in a polar axis shift, as per Dr. Barbiero's tilt model.

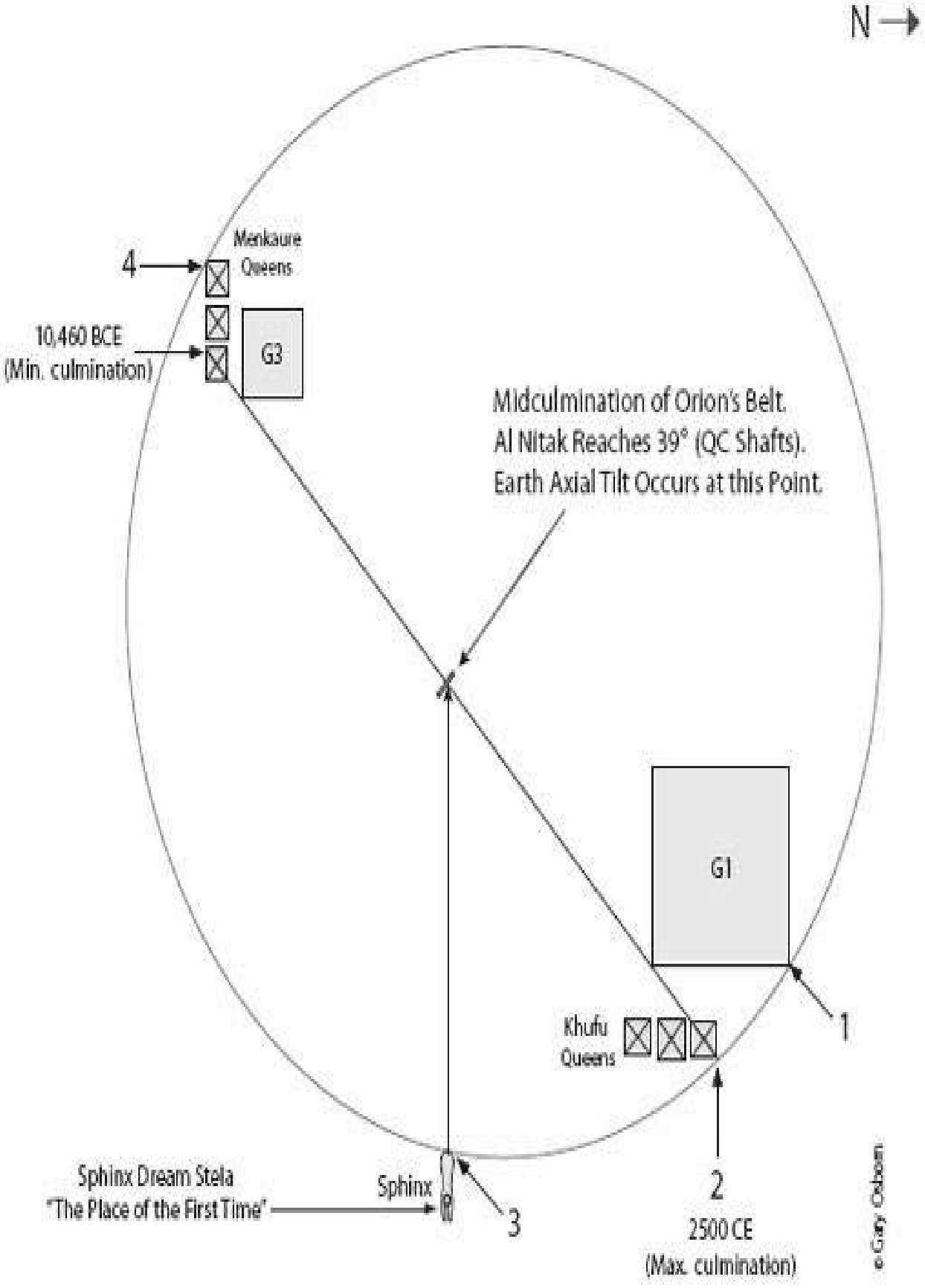

N
Menkaure
Queens
4
10,460 BCE
(Min. culmination)
G3
Midculmination of Orion's Belt.
Al Nitak Reaches 39° (QC Shafts).
Earth Axial Tilt Occurs at this Point.
G1
Khufu
Queens
1
Sphinx Dream Stela
"The Place of the First Time"
Sphinx
3
2
2500 CE
(Max. culmination)
© Gary Osborn

Figure 10.2. The catalyst event that may trigger an axial tilt of the Earth reaches its most critical phase at the midpoint of the Orion precessional cycle, the midpoint of the Giza-Orion precessional time line (Lehner line) as indicated by the alignment of the Sphinx, known as the Father of Terrors. This point in the cycle will not be reached again until around 8980 CE.

So, while the catalyst event in this particular scenario—an increased asteroid and/or meteorite bombardment—may always occur at the same time, at the midpoint of the Orion Belt precessional cycle and/or when Al Nitak reaches an altitude of around 39° on the southern meridian, it does not follow that this will always automatically result in an axis shift of Earth, although the possibility of this outcome occurring again, however small, still remains. This hypothesized increase in asteroid and/or meteorite bombardment is but one example of a possible catalyst event, and such a scenario is of particular interest in this regard, since there is in fact some good evidence that around the beginning of the great pyramid-building age, ancient Egypt was indeed struck by asteroids. The July 26, 2010, edition of Metro News reported:

There have only been 176 confirmed impact craters on Earth, but this one, called Kamil [in the Egyptian desert], is one of the best-preserved.

It measures 45m [148 feet] wide and 16m [53 feet] deep and was first noticed on Google Earth images in 2008 by Vincenzo de Michele, former curator of the Civico Museo di Storia Naturale, in Milan, Italy.

The crater is remarkable not just because it went undiscovered for so long, but because it is what’s known as a “rayed crater.” This means it is has spokes, or rays, of light-coloured material around the outside that the impact has blasted out. According to Folco rayed craters are very rare indeed, because the weather on Earth usually erodes them quite rapidly.

“It’s so nice. It’s so neat. There is something extraordinary about it,” said Folco.

Studies by scientists who’ve visited the site suggest that the meteorite was about 1.3m [4.3 feet] wide, weighed between five and 10 tonnes and was travelling at a mind-boggling 3.5 kilometres [2.2 miles] per second when it struck the Earth’s surface, no earlier than 5,000 years ago. They found 5,000 pieces of iron meteorite nearby, weighing 1.7 tonnes.

The report about the meteorite can be found in the latest Science journal, and it’s hoped that further analysis of the crater will help experts learn more about the effects of small-meteor impacts.[13]

Other impacts such as the Burckle Impact (south Indian Ocean) and the Al’Amarah Impact (Iraq) have been known to strike the planet at times that correspond reasonably well (within a few hundred years or so) of the beginning of the pyramid-building age, any one of which may have induced an axis shift as per Dr. Barbiero’s model.

It is beyond the scope of this book to consider every possible catalyst event that might result in a tipping of Earth’s polar axis. Suffice it to say that there are probably many possibilities we can easily identify, such as massive solar storms, increased asteroid and/or meteor impacts, and galactic core explosions, while there are probably just as many, if not more, possibilities that we cannot even begin to imagine. But whatever this cyclical catalyst event (if there is such a thing) may happen to be, it does seem to have brought devastating consequences to Earth last time around in ca. 3980 BCE and, it has to be said, may do so again next time around.

While ca. 8980 CE seems in our view to be the next most likely date for these troublesome times to manifest themselves, what we now have to consider is the possibility that there may be further dates encoded into the time line in a similar manner to that which we have already uncovered. In other words, we should leave no stone unturned in our analysis of the time line and the Sphinx to uncover any other possible means of encoding other significant dates. We feel that a failure on our part to further analyze the time line for other possible dates that may have been encoded would be remiss, and this really is not an option.

One of our reasons for undertaking this further analysis is because we know that the ancient Maya speak of each of their World Ages as being around 5,850 years long before it comes to an end in some natural cataclysm. This is considerably less than the 12,960-year interval that the Giza-Orion time line presents for such dire events to arrive. It stands to reason then that there may indeed be other dates indicated along the Giza-Orion time line. Let us now consider this possibility.

As demonstrated in chapter 3, a circle circumscribed around the three outermost corners of the Giza pyramid field finds the rear of the Sphinx sitting precisely on the circle's perimeter (figure 3.3a). We do not consider it at all possible that this placement can be attributed to random chance; this was planned. We also noted that the center of this circle finds the Belt star Al Nilam at the center of this circle (with the other two stars centered on G1 and G3). Furthermore—and quite remarkably—this circumscribed circle has a radius that measures almost precisely 1,200 cubits (2,400 cubits diameter). We have to ask, then, why was it so important to the designers to place the Sphinx precisely on the perimeter of this circle? Why even imply this circle at all?

We know already that a straight line drawn due west from the Sphinx will intersect the Orion precessional time line precisely at its midpoint, giving the highly significant date of ca. 3980 BCE (ca. 2630 BCE post-tilt). Might it not then be possible that other implied lines from the Sphinx intersect the precessional time line at specific points, thereby indicating other times (dates) that Earth might face peril? If so, how might this have been achieved? How

might any other such dates have been encoded into the time line?

Well, notice in figure 10.2 how, of the four points that connect the Great Giza Circle, only two points (points 1 and 4)—as viewed from the position of the Sphinx—are above or beyond the time line. We know that the Sphinx is intrinsically connected to the circle, which is, in turn, connected to the time line (via the two sets of Queens' Pyramids).

Logic would seem to dictate that there are only two conceivable points in this plan with which to draw a line from the Sphinx—two points that will create a line from the Sphinx that will intersect the Giza-Orion time line at specific points. If we then connect these two points from the position of the Sphinx, something quite intriguing happens.

As stated, logically these two points (1 and 4) on the circle's perimeter are the only implied places we can connect a line from between the paws of the Sphinx, which the Dream Stele tells us is the Zep Tepi—the place of the First Time (figure 10.3). What we then find is that these lines from the Sphinx intersect the time line at two locations close to the culmination points of the Belt stars, offering us two additional dates. By carefully measuring the intersecting points, we find two additional dates encoded (figure 10.4).

What is also remarkable and worth noting here about these intersecting lines drawn from the Sphinx is that they exhibit in a very obvious way the very same angles (6.5°, 20°, 23.5°, and 26.5°) that we have seen repeated time and again within the interiors of these monuments. As we have already demonstrated numerous times throughout this book, the information and the overall message we are dealing with here seem to have been encrypted in angular form, and so it is no surprise to discover that this is also the case with the Giza monuments and their layout on the Giza plateau with respect to the position of the Sphinx (figures 10.5 a–c on pages 282 and 283).

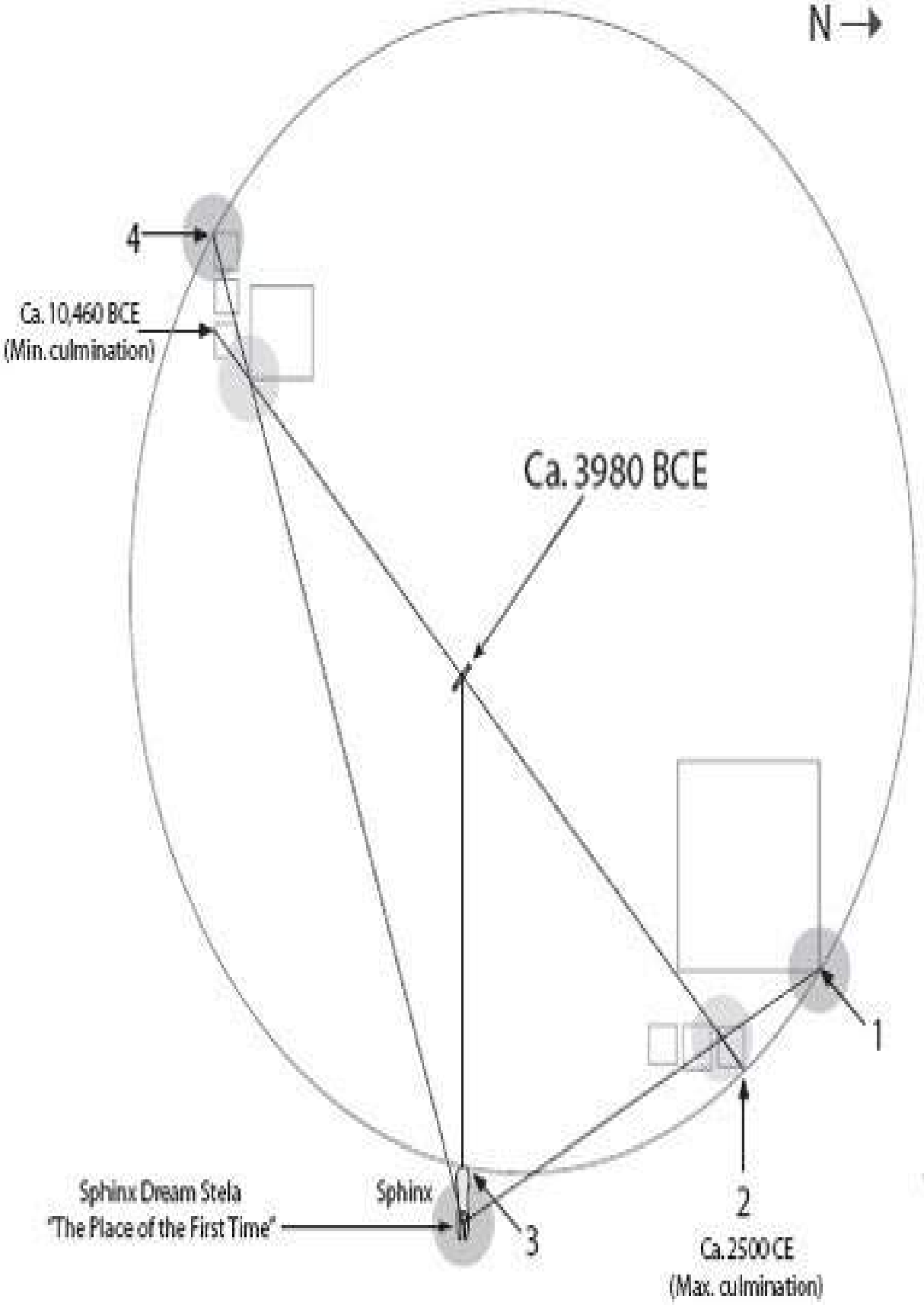

N
4
Ca. 10,460 BCE
(Min. culmination)
Ca. 3980 BCE
1
2
Ca. 2500 CE
(Max. culmination)
3
Sphinx
Sphinx Dream Stela
"The Place of the First Time"
© Gary Osborn

Figure 10.3. The Sphinx intersects the Giza-Orion precessional time line at two other points.

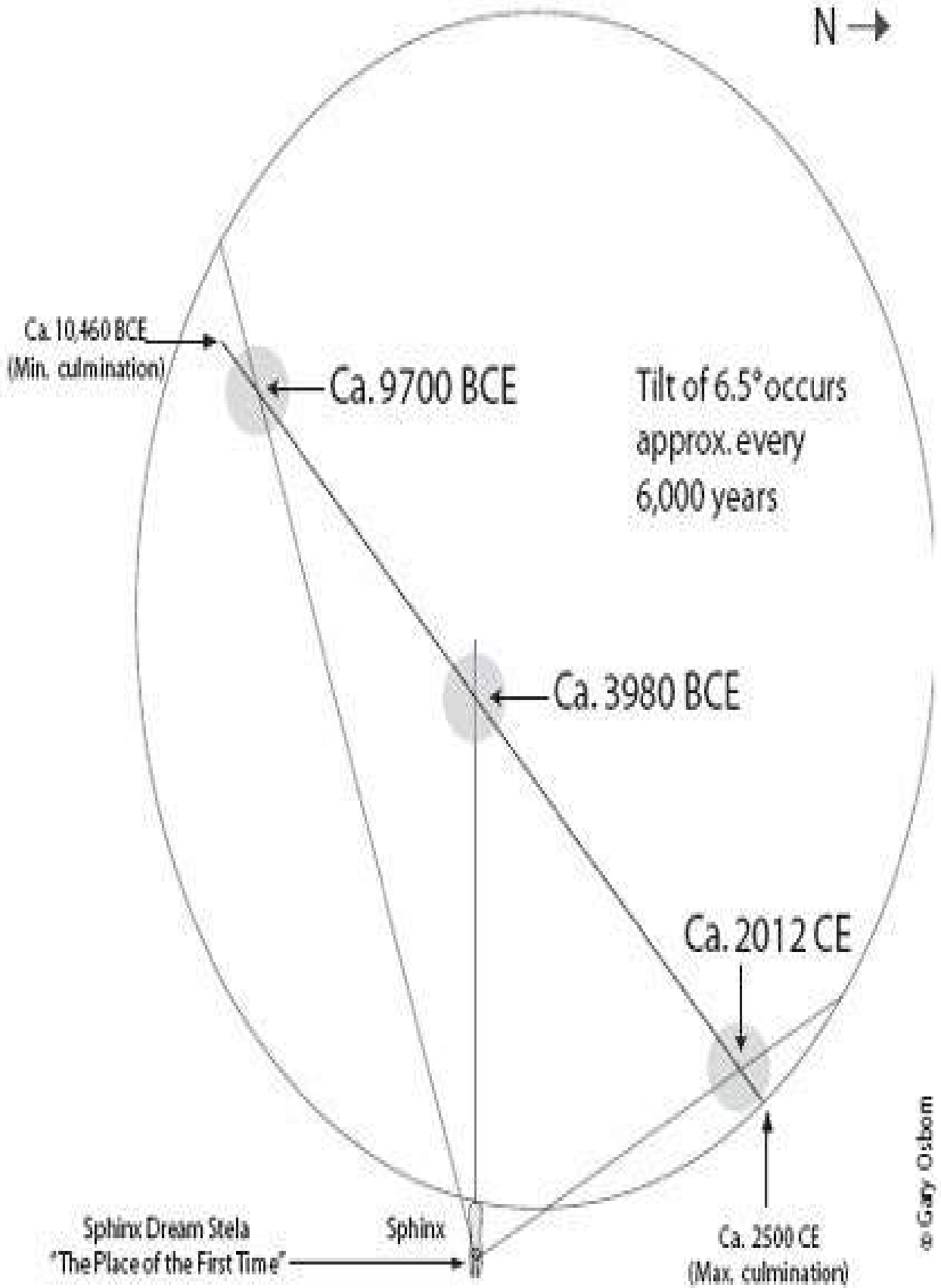

N
Ca. 10,460 BCE
(Min. culmination)
Ca. 9700 BCE
Tilt of 6.5° occurs
approx. every
6,000 years
Ca. 3980 BCE
Ca. 2012 CE
Sphinx Dream Stela
"The Place of the First Time"
Sphinx
Ca. 2500 CE
(Max. culmination)
© Gary Osbon

Figure 10.4. The Giza-Orion precessional time line is intersected at three points to reveal a total of three dates.

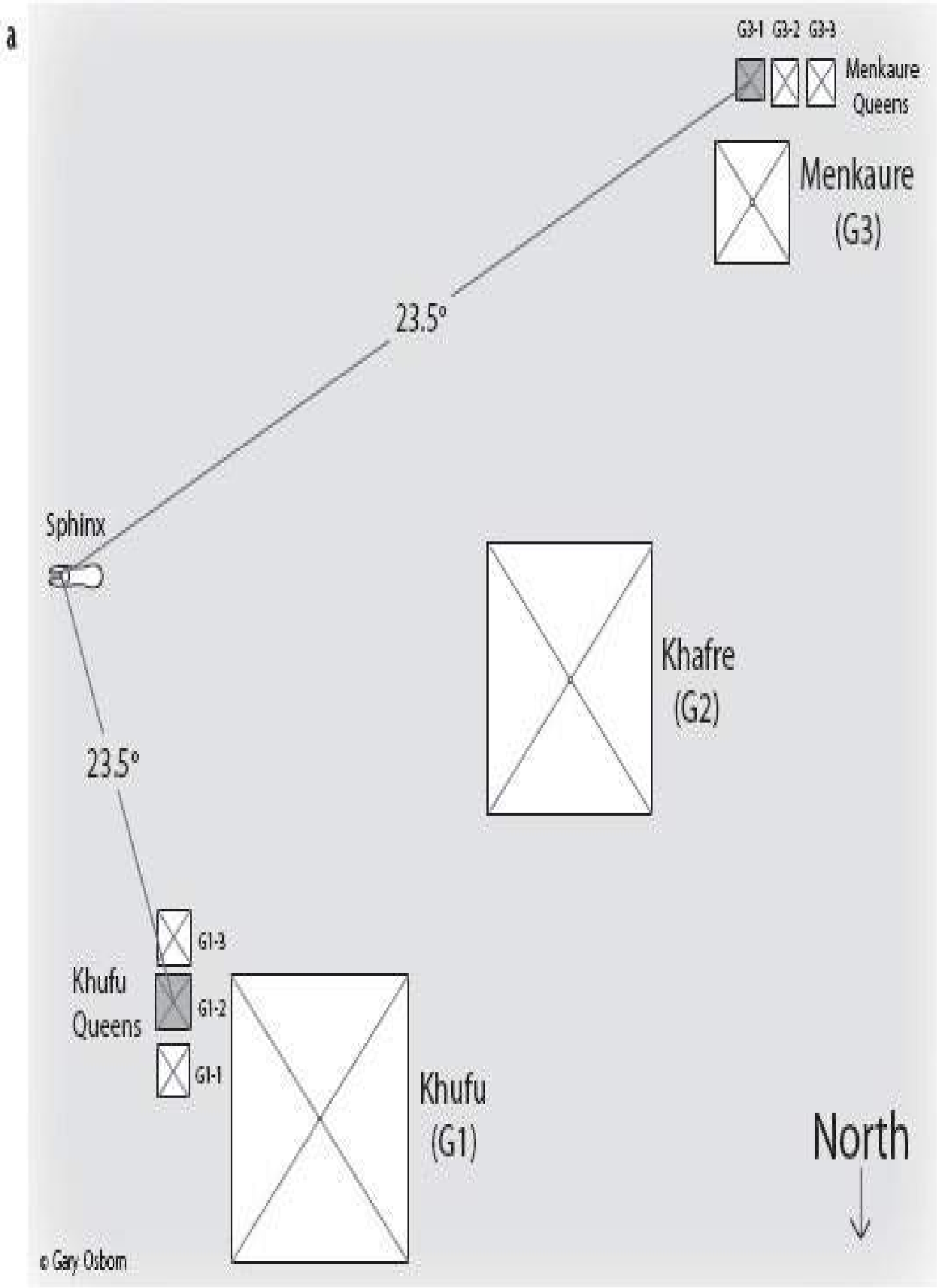
Now, what is interesting about the additional two dates we find revealed on the time line (figure 10.4) is that the date of ca. 9700 BCE was when significant changes were occurring on Earth; ice sheets over Europe and North America were melting, seas were rapidly rising, and many animal and plant species were becoming extinct. This date is also very close to the date Plato tells us Atlantis sank beneath the seas. Some theorists have proposed that this rapid climate change during the last ice age may have been the result of a sudden change in Earth's polar axis, an event that—according to the research of George F. Dodwell and our own findings concerning the shafts of the Great Pyramid—seems also to have occurred around 2630 BCE (ca. 3980 BCE pre-tilt). These dates are, of course, assuming the current precessional cycle.

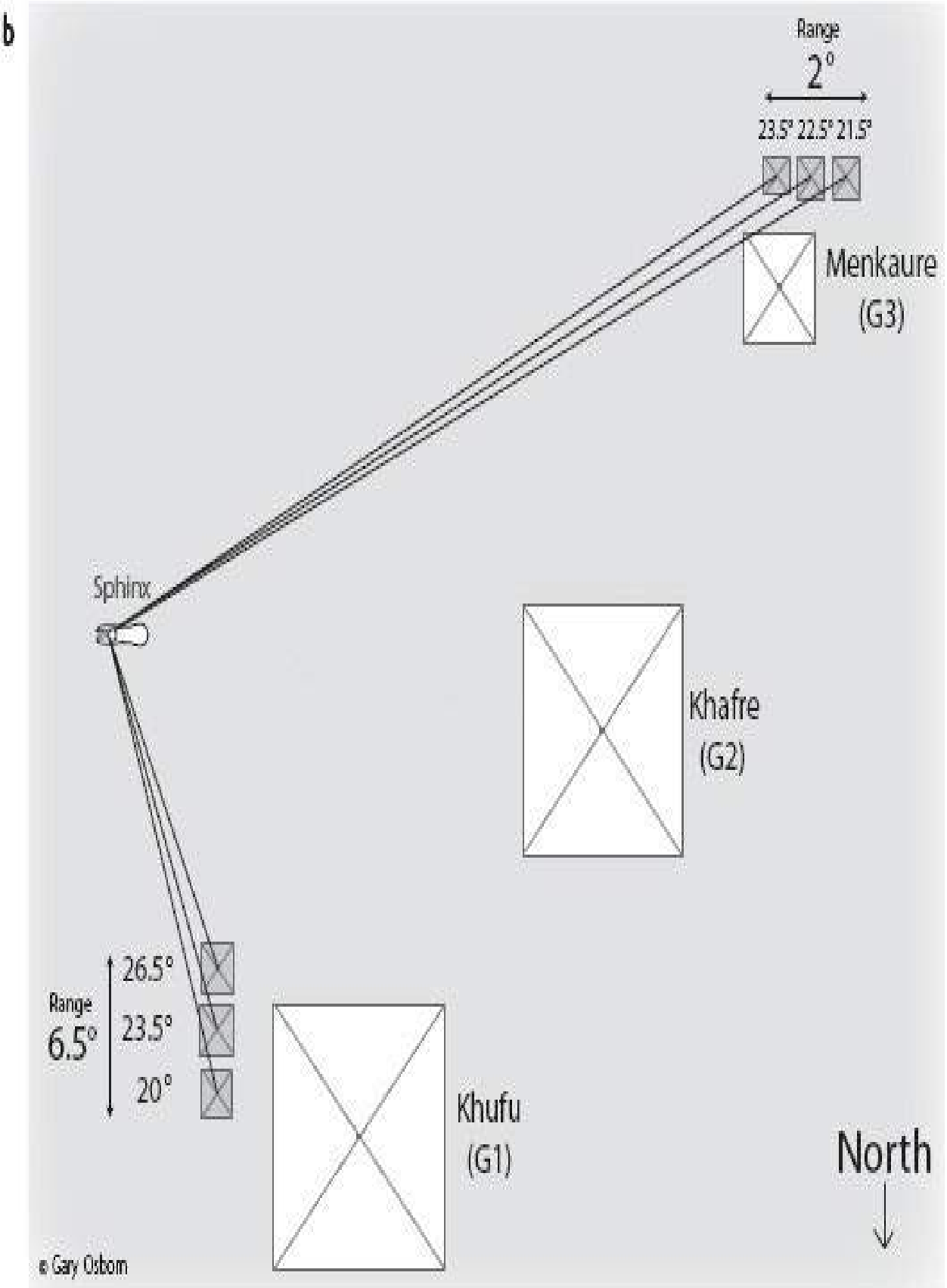
The final date on the time line—ca. 2012 CE—is no less significant, as this also happens to be the end date of the Mayan calendar, the end of their fifth World Age, their Fifth Sun. As previously mentioned, according to Mayan tradition each Sun or Age (of around 5,850 years) apparently met with a cataclysmic end.

Thus we find that each of the three dates encoded within the Giza-Orion time line is separated by around 5,856 years (average)—a periodicity almost identical to that of the ancient Mayan World Ages of 5,850 years.

And we must ask again, is this perhaps why—as we saw in the opening chapter of this book—there would seem to be an underground stream of hidden knowledge of this 23.5° angle, flagging to anyone with the eyes to see the vulnerability of Earth's axis at these times, an angle that seems to appear with more regularity than mere chance would permit within the works of numerous Renaissance artists? We must reiterate that it remains our view that the most

likely date for the catalyst event that may bring about this axis shift (if this is indeed what the ancient architects of the Giza monuments are trying to indicate to us) will arrive ca. 8980 CE, when we once again reach the midpoint of the Giza-Orion time line, the midpoint of the precessional cycle of Orion's Belt. This seems explicitly clear with the straightforward alignment of the Sphinx to the midpoint of the Giza-Orion time line, a point in the Orion's Belt precessional cycle that is corroborated by the 39° angle of the shafts of the Queen's Chamber. It should be noted, however, that in ca. 8980 CE Al Nitak will only have reached an altitude of around 36°. It is only upon the next midpoint of the Orion precessional time line, around 21,940 CE, that Al Nitak will again reach 39° altitude.


a
G3-1 G3-2 G3-3
Menkaure Queens
Menkaure (G3)
23.5°
Sphinx
Khafre (G2)
23.5°
G1-3
Khufu Queens
G1-2
G1-1
Khufu (G1)
North
© Gary Osborn


b
Range
2°
23.5° 22.5° 21.5°
Menkaure
(G3)
Sphinx
Khafre
(G2)
Range
6.5°
26.5°
23.5°
20°
Khufu
(G1)
North
© Gary Osborn

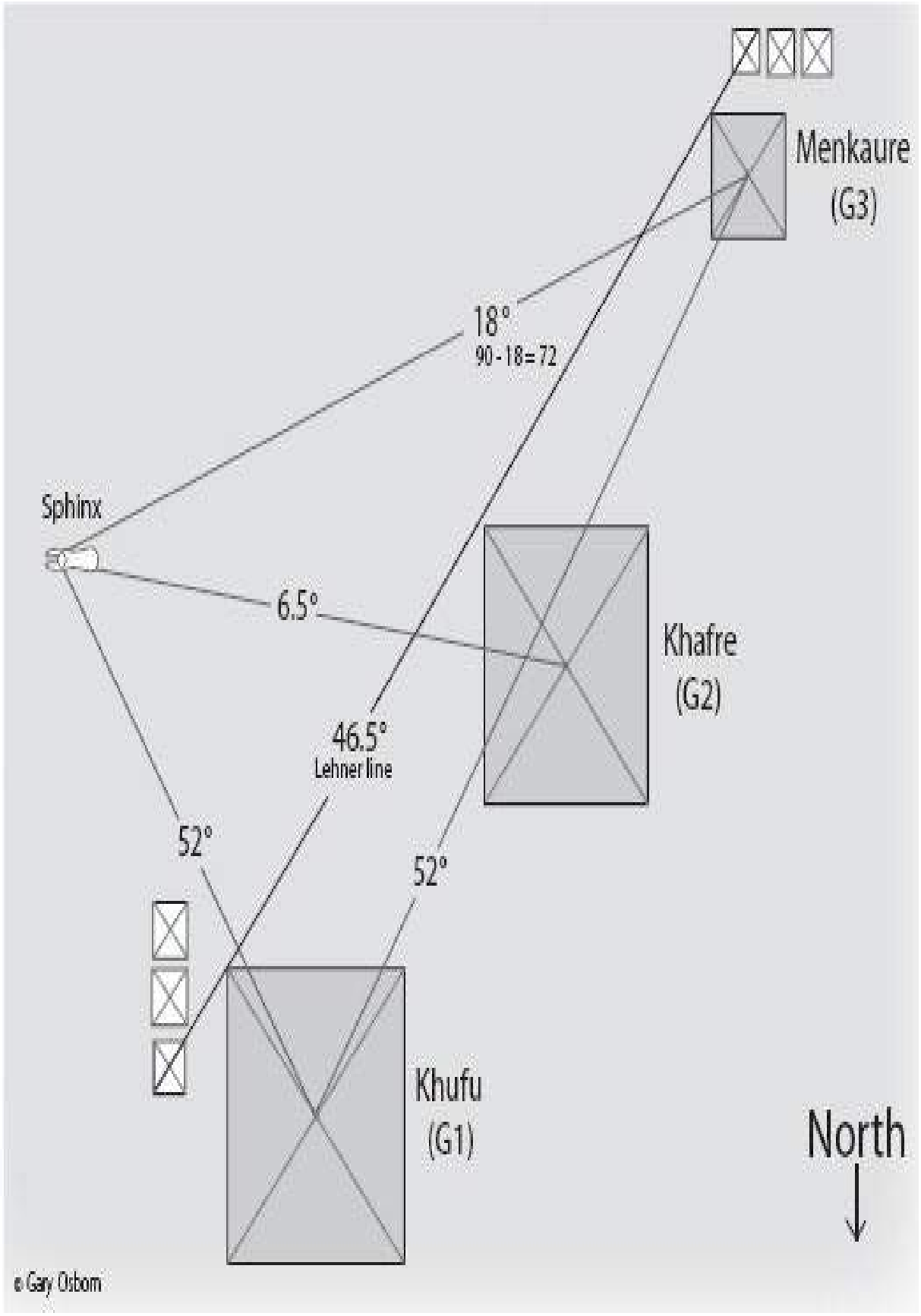

Menkaure
(G3)
18°
90 - 18 = 72
Sphinx
6.5°
Khafre
(G2)
46.5°
Lehner line
52°
52°
Khufu
(G1)
North
© Gary Osborn

Figure 10.5a–c. (Opposite and above) The angle alignments between the Sphinx, Queens' Pyramids, and Lehner line

While the two other dates we have subsequently uncovered also appear to be implied in the design and are in themselves of a highly significant nature, we feel that since these other two dates seem to have been encoded in a much less obvious manner, they may simply be the result of mere coincidence. We cannot be sure of this, of course, and would submit to the readers that they take what they will from the discovery of all three of these dates in the Giza-Orion time line.

In other words, we may well be completely off the mark with this hypothesis, but we feel it important to inform the readers about the Giza-Orion time line and the three dates that may have been encoded therein, regardless of their hypothetical status. We would simply ask, What harm would it do for our civilization to err on the side of caution and begin making all the necessary preparations (if we are not already doing so) as we approach these potentially pivotal dates with destiny?

Chapter 10 Summary

The ancient Egyptians may have built their great pyramids as recovery vaults in anticipation of a natural disaster, a great flood that they may have believed would occur after the heavens had moved out of their proper place, perhaps as an act of their god Thoth.

Naturally, to ensure maximum storage capacity in the recovery system, it makes sense to construct as many vaults as possible, with as many chambers as possible, as quickly as possible, thus perhaps explaining why some ancient Egyptian kings concurrently built numerous pyramids with numerous chambers.

By building very large structures, the architects could be sure that the pyramids would be easily found by survivors, who would use their contents to ensure the revivification of the kingdom—an afterlife for the kingdom.

Other pyramids with no internal chambers may simply have served as beacons or cairns, marking the location of underground recovery caches.

The sarcophagi would serve as stone reliquaries, holding and protecting the most precious and sacred texts of the kingdom—to pass on to their descendants so they would know their gods and their history.

It may also be possible that the sarcophagi within the pyramids served originally as archetypal Osiris Beds, a stone box into which a layer of earth was laid and

then sown with grain. The growing of the seeds within the Osiris Bed symbolized the Ka (life force) of Osiris, whereas the bull bones found in the Osiris Bed of the G2 pyramid would symbolize the Ba (personality) of Osiris. The pyramids at Giza symbolized the stellar personification of the body of Osiris (Sah). The developing religious significance of the pyramids as afterlife machines would have ensured that in later pyramids the Osiris Bed would become the sarcophagus—the Osiris Bed—for the pharaoh himself.

The special arrangement of the pyramid structures at Giza would—in addition to serving as recovery vaults for seeds, tools, pottery, weapons, oils, linens, sacred texts, and so forth—serve as an astronomical clock and/or calendar, their arrangement on the ground at Giza representing a 13,000-year time line linked to the precessional cycle of Orion's Belt, indicating the times of this forgotten catastrophic Earth cycle.

The Great Sphinx—the Father of Terrors—may indicate three dates within the half-cycle of Orion's Belt when we might expect the return of this cyclical event. The three dates indicated (in the present half-cycle of Orion's Belt) by the Giza precessional time line are ca. 9700 BCE, ca. 3980 BCE, and ca. 2012 CE.

The date ca. 3980/2630 BCE agrees reasonably well with the date astronomer George F. Dodwell tells us Earth's obliquity tilted to around 26.5°, from which it has been slowly recovering ever since.

A shift of 6.5° in the heavens as observed at the latitude of Giza (which the shafts of the Great Pyramid seem to indicate) would result in the loss of around 1,350 astronomical years. The date ca. 3980 BCE would instantly become ca. 2630 BCE. This date agrees reasonably well with the commencement of the ancient Egyptian great pyramid-building age, which was closely followed by its sudden and inexplicable collapse. Conventional opinion suggests sudden and dramatic climate change as the likeliest cause of this collapse, such as would have arisen from a sudden and rapid tilt of Earth's polar axis.

The next critical time in this cycle will most likely occur ca. 8980 CE—at the next midpoint of the Orion Belt precessional cycle. While the Giza-Orion time line seems also to indicate the year ca. 2012 CE, given the much less obvious encoding of this date on the Giza-Orion time line, we consider the ca. 2012 CE date to be considerably less likely to have any dire consequences. This is not to say, however, that the more subtle encoding of the ca. 2012 CE date on the time line should allow us the luxury of simply rejecting this date out of hand; this date may be every bit as significant, every bit as valid, and as such, we should treat it with the same seriousness as we would the much more obviously encoded date of ca. 8980 CE. All we are saying here is that we have found these three dates encoded into the Giza-Orion time line—some more obviously than others—but that it will do us no harm in the twenty-first century to treat them all as significant and to put in place all necessary and appropriate measures in advance of these dates to ensure the continuation of our civilization should any hitherto unknown natural Earth event bring about its collapse around the dates indicated.

The significance of this 23.5°-obliquity angle is perhaps alluded to in the symbology of Freemasons and in the paintings of numerous artists from the earliest times as a way of alerting those with eyes to see of the vulnerability of Earth’s polar axis, this angle being continually associated with images of death and destruction.

11

SECRET OF THE SANDS

Throughout the course of this book, we have presented many anomalies in the conventional view of the giant pyramids of ancient Egypt and have presented our own radical hypothesis to help explain them—a hypothesis that we feel in many respects better explains the extant evidence than the prevailing tomb theory. In so doing we also presented various pieces of evidence that seem to indicate a hidden hand in the design and construction of these great monuments, a scientifically astute civilization with a level of knowledge and understanding that goes far beyond that generally attributed to the ancient Egyptians of the dynastic period. In the ancient monuments this invisible college has left behind, we find the traces of their sacred science, the faintest echoes of their profound wisdom.

But is that it? Is there nothing more tangible to discover—a hidden Hall of Records—that might give us a better sense of who these people of science really were? Has all other evidence of their existence disappeared with the sands of time? Might not there be something more to discover that will finally answer the mystery of who the members of this invisible college really were, something that they may have placed in plain sight that we are simply not seeing?

Perhaps there is.

The final anomalous feature of the giant pyramids that requires explaining are the so-called concavities found on each face of the pyramids of Khufu (G1) and Menkaure (G3), figures 11.1 and 11.2 on page 293. These concavities are barely

visible grooved indentations made to the center of each face—top to bottom—of each of these two pyramids. This curious feature is unique to these two pyramids, and there is no mainstream consensus to explain why they were made.

We hypothesized in previous chapters how the early, giant pyramids may in fact have been built as recovery vaults and how each recovery vault at Giza was laid out to also present an astronomical clock (using the precessional motion of Orion's Belt stars) that would inform future generations of the Egyptian civilization when to expect the possible return of these cataclysmic times.

One of the problems, however, of such a recovery plan is that its designers could not know the type of people that would be the first to find and enter their recovery vaults after the predicted calamity had devastated the land. The designers had a dilemma: they had to place the recovery vaults (the pyramids) in plain sight and in such a manner that they simply could not be missed for miles around. At the same time, however, they would not have wanted to attract the wrong sort of people to the vaults, a person or persons who might actually come across the structures, open them, and do more harm than good by ransacking the vaults in search of more precious items like gold, precious stones, or whatever, people who might have no reverence for the sacred and who, in their complete ignorance and frustration at finding no gold or other valuable objects, might smash or otherwise destroy the ancient texts and the other precious items in the recovery cache. This scenario might not have arisen, but it was always a possibility, and as such had to have been a concern to the designers of the recovery system, the afterlife machines.

The Fourteenth Part of Osiris

To counter such a dire scenario, the planners would have to build yet another recovery vault, only this vault would be totally unseen—a vault hidden far away from the pyramids, deep underground where casual discovery simply could not occur. But this, of course, raises the obvious question, If this vault was deep underground, far from the pyramids in the desert, how would anyone ever be able to discover it?

Perhaps by following the clues left behind by the designers. First of all, we have the Myth of Osiris:

The original form of the myth states that Osiris was killed by a wooden sarcophagus secretly being made to his measurements by Set, who was jealous of Osiris's position as king, and so plotted to kill him and take his place. A party had been held where the coffin was offered to whoever could fit inside. A few people tried to fit in, but to no avail. Osiris was encouraged to try, but as soon as he lay back, the lid slammed on him and was locked. It was then sealed with lead and thrown into the Nile. Upon hearing that Osiris was gone, Isis set out to look for him. She was afraid without proper ceremonies and burial Osiris would not be able to go to the place of the dead. She later learned that the coffin had floated down the Nile river up to the coast of Byblos (now in modern day Lebanon) and got embedded in the trunk of a cedar tree. She also learned that the cedar tree had been taken and used as a pillar to support a palace for the king of Byblos. When traveling back, along the Nile River, she left the coffin in an area of marshland. Set, while hunting, finds Osiris' coffin and dismembered him into 14 parts, scattering them across the land of Egypt. . . . Once again Isis set out to look for the pieces and she was able to find 13 of the 14 parts, with the help of Nephthys, Seth's sister-wife, but was unable to find the 14th. Instead, she fashioned a phallus out of gold and sang a song around Osiris until he came back to life.

Osiris was resurrected. He could have proper ceremonies and burial.

Due to this experience, Osiris became Lord of the Dead, and the Afterlife.[1]

The Myth of Osiris is quite interesting. The first part seems to make a connection with a sarcophagus made by Set, the evil brother of Osiris, into which no one could fit. This may, in fact, be a metaphor indicating that the sarcophagus was not in fact meant for a human body—dead or alive—but for something else. We learn also that Isis, the wife of Osiris, attempts to find the dismembered pieces of Osiris's body but can find only thirteen of the fourteen parts. Might not this be an allegory for the recovery system built by the ancient Egyptians, that there are thirteen visible parts and one hidden part?

Intriguingly, if we count up the early giant pyramids (excluding that of Radjedef, who we contend was the son of Raufu and not Khufu, so the pyramid built by Radjedef would likely have been a structure of the Old Kingdom period as opposed to of the former Golden Age), there are only thirteen finished structures (including the two sets of three so-called Queens' Pyramids at Giza)—that is, thirteen finished recovery vaults.

And since the structures at Giza appear to have been laid out to represent Orion's Belt (the stellar depiction of Osiris/Sah, who was the ancient Egyptian god of rebirth and regeneration), might not these thirteen pyramids "scattered across the land of Egypt" be a metaphorical reference to the thirteen parts of the body of Osiris that were found by Isis? But the story tells us there is a fourteenth part hidden away that Isis could not find. Is this perhaps alluding to a fourteenth vault of Osiris hidden away, deep underground somewhere?

The final part of the Osiris myth records that Isis “fashioned a phallus out of gold and sang a song around Osiris until he came back to life.” Of course, the pyramids themselves can be considered phallic symbols, and through the careful storage of seeds and other essential recovery items within them (i.e., within the body of Osiris), the kingdom of Egypt could revivify itself through Osiris, through the afterlife machines.

Researcher and author Dr. Joseph Jochmans tells us that the Corpus Hermeticum (Virgin of the World), “a body of treatises compiled from much older texts at the beginning of the Christian era . . . ,” also makes reference to Osiris and “hidden rooms”:

The sacred symbols of the cosmic elements, the secrets of Osiris, were hidden carefully. Hermes (the Greek equivalent to Thoth), before his return to Heaven, invoked a spell on them, and said, O holy books which have been made by my immortal hands, by incorruption’s magic spell remain free from decay throughout eternity and incorrupt by time. Become unseeable, unfindable, from everyone whose foot shall tread the plains of this land, until old Heaven shall bring instruments for you, whom the Creator shall call His souls. Thus spake he, and laying the spells on them by means of his works, he shut them safe away in their rooms. And long has been the time since they were hid away. . . . [The rooms] will be opened by three.[2]

Here we have an ancient text telling us that “the secrets of Osiris, were hidden carefully . . . in their rooms” and that these rooms “will be opened by three.” Many believe that this Hall of Records (perhaps a hidden recovery vault) will be discovered by three people. In our view, however, the solution to this particular riddle may be much more obvious: the “three” in question in this ancient text might in fact be referring to the three main Giza pyramids themselves. As stated, these structures (along with the other giant pyramids) were probably built so massively and in plain sight precisely so that they would be easily found and their contents recovered and used in the revivification of the devastated kingdom. But what if the wrong sort of people found the vaults and ransacked

them—what then?

Well, the three main Giza pyramids (“the three”) might in fact have been used in a very subtle and clever way to point to an area far away from the Giza plateau, an area where, beneath the ancient, undisturbed sands, might lie an ancient, unopened recovery vault, the secret vault of Osiris, the fourteenth part of Osiris that was so well hidden, not even Isis could find it.

By using the main pyramids in such a way in order to target the location of a hidden vault, the designers are effectively covering all bases, since the secret vault would require more enlightened minds to determine its hidden location, minds of a higher intellect that might recognize how centroid geometry (the geometry of triangles) could be used to encode the location of any hidden vault, as opposed to it being discovered through casual happenchance by mindless barbarians. In this way, even if all other pyramid vaults were ransacked and destroyed, a secret, hidden cache would serve as the last resort, the final means by which the more enlightened survivors might be able to ensure that the revivification of the devastated kingdom had every possible chance of succeeding.

But how might the main pyramids at Giza be used to point to a secret location far away from the pyramids, to the whereabouts of a possible hidden “vault of Osiris”?

By using the concavities!

It is our view that the concavities of G1 and G3 may have been deliberately placed on each face of these two structures to provide a subtle hint, a clue to a particular means of triangulation—centroid geometry.

The Giza Centroid Theory: Key to the Secret Vault of Osiris?

As we noted earlier in this book, the first thing that anyone observes with even a cursory glance at the pyramids is their perfectly formed geometrical shape and their precise alignment to the cardinal directions. Thus it is fair to say that the primary context we observe when looking at the pyramids is that of geometry and astronomy.

As stated earlier, there are around 138 pyramids in Egypt that have been discovered to date, the vast majority of them nothing more than piles of rubble. In the pyramids at Giza we find something unique in their construction: the Great Pyramid (G1) and the pyramid of Menkaure (G3) are the only eight-sided structures (figures 11.1 and 11.2) in all Egypt. Can it be that this unusual geometric feature of these two pyramids is some kind of key—a hint, as it were—to a latent centroid geometry that would allow us to identify the secret location of a hidden vault?

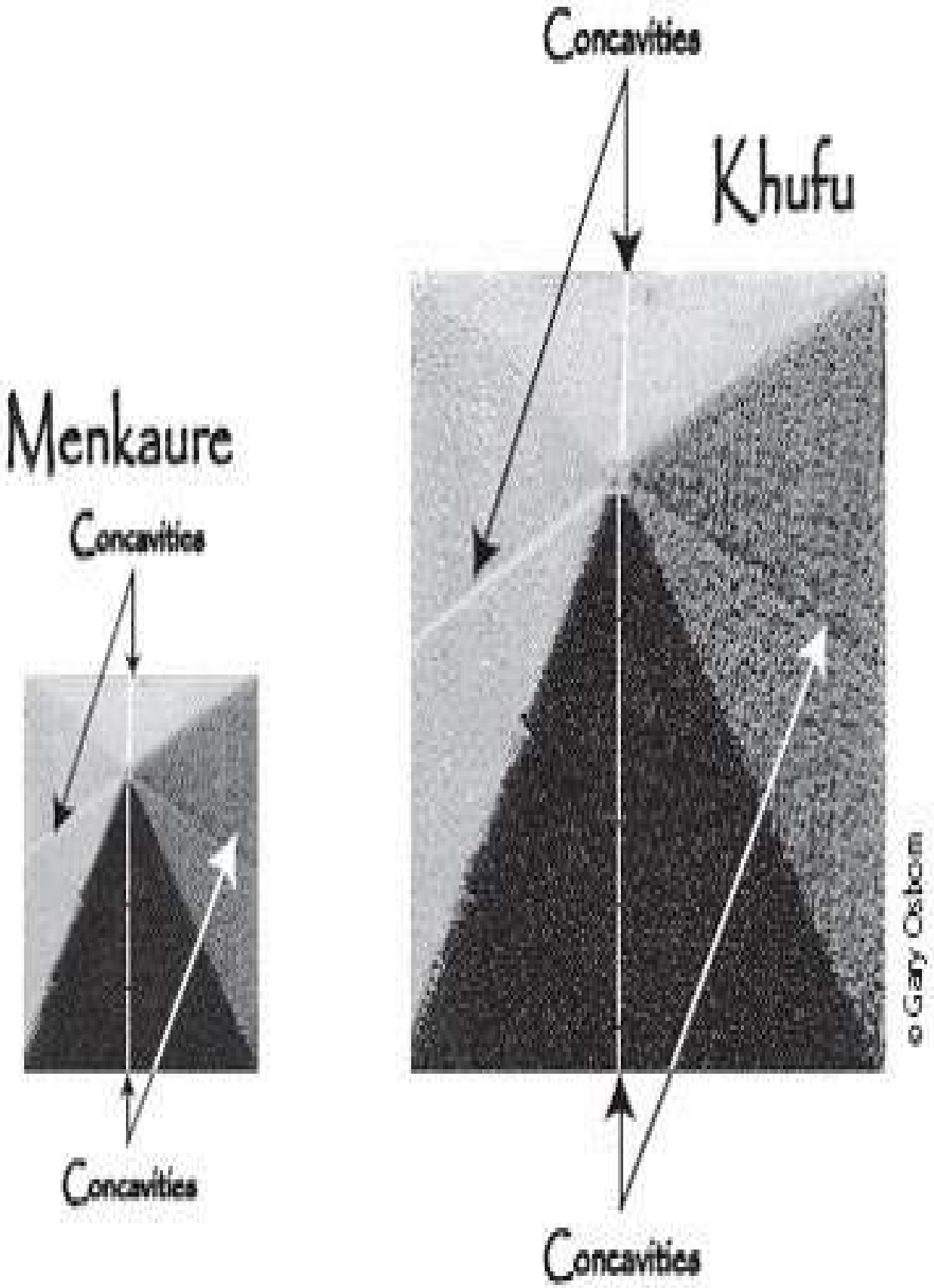
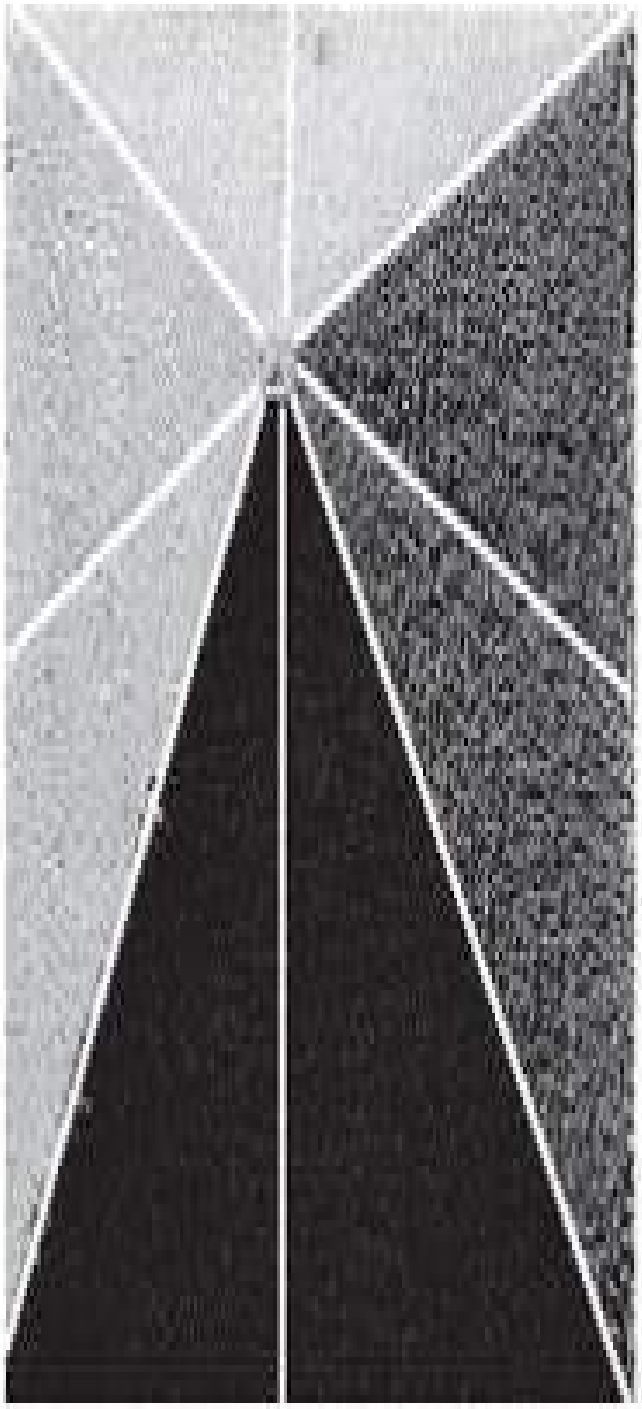

Concavities
Khufu
Menkaure
Concavities
Concavities
Concavities
© Gary Osborn

Figure 11.1. Author's rendition of pyramids with side faces showing concavities.

Khufu



Menkaure

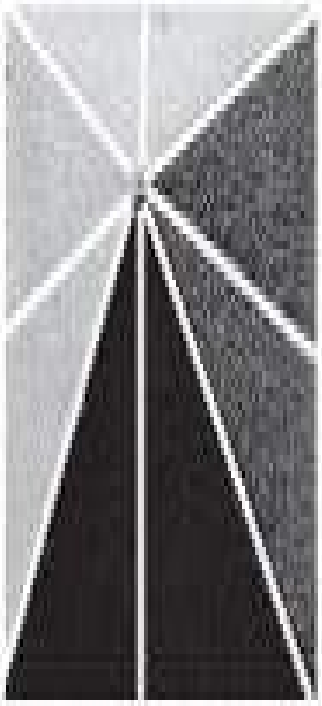


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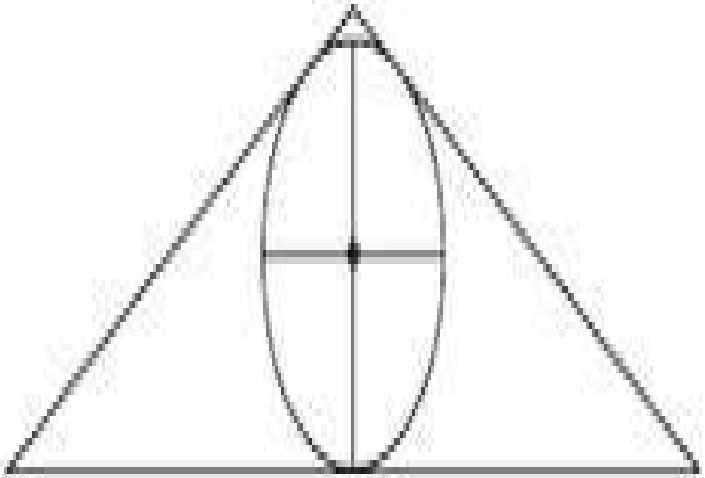
Figure 11.2. G1 and G3, author's rendition showing that pyramids are eight-sided structures.

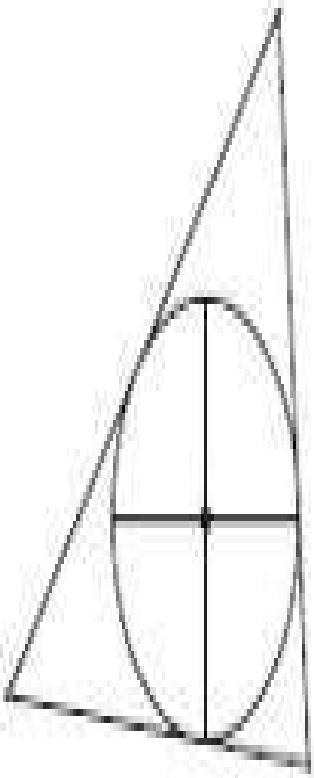
It may be that these very unusual and unique features of these two pyramids—the concavities that run down each face—hint at a simple geometric technique, centroid geometry, and that this technique might have been employed to point to the location of a secret vault somewhere in the desert far from the Giza pyramids.

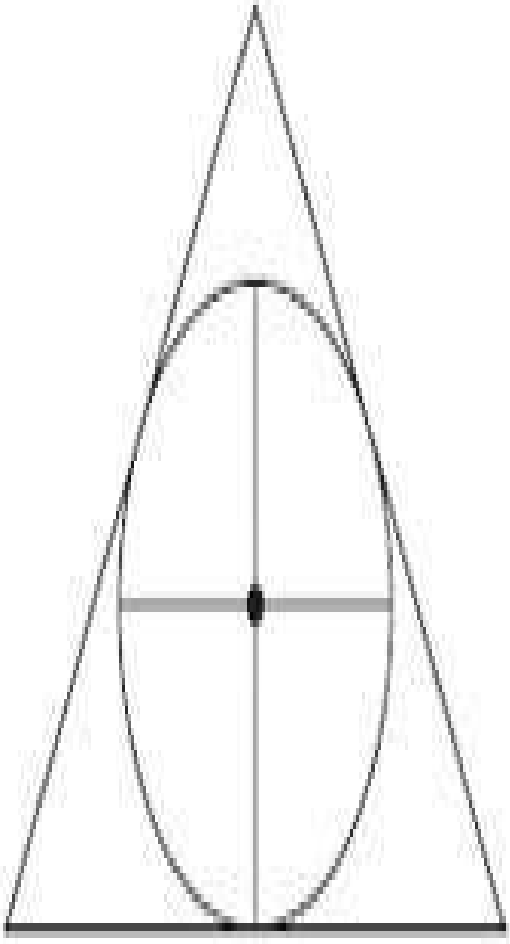
A square, rectangle, and circle have only one center—not so a triangle, however, which has many centers known as centroids. Each of these different centroids or points within the triangle satisfies some unique property of the triangle. Our modern mathematics is aware of over a hundred different triangle centroids, but it seems the ancients were familiar with only the three simplest and most ancient of these: incenter, barycenter, and circumcenter.

The three simplest and most ancient triangle centroids are detailed in figures 11.3a–c.

1. The incenter: This point requires a circle to be inscribed within the triangle whereby the perimeter of the circle touches all three sides of the triangle. The center of the inscribed circle is then plotted, and this point becomes the triangle's incenter centroid.







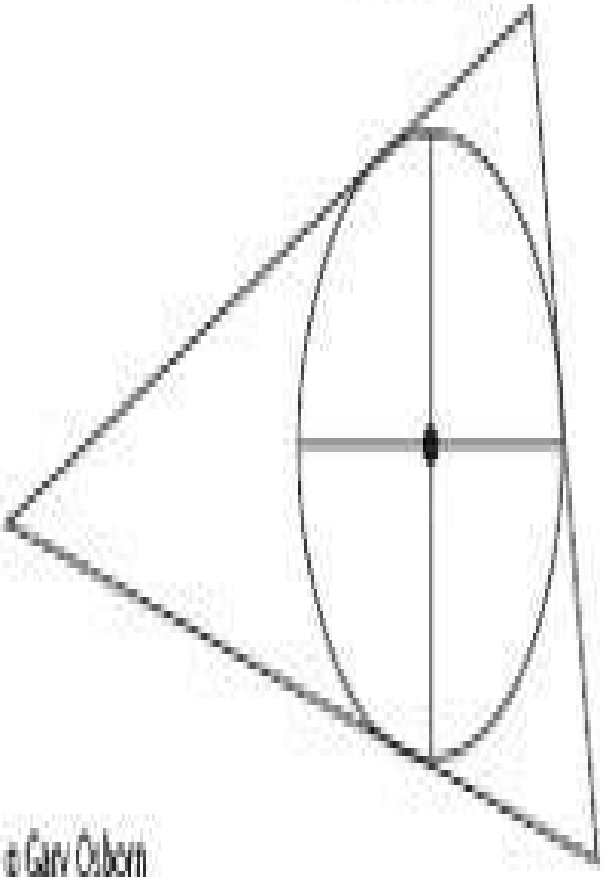


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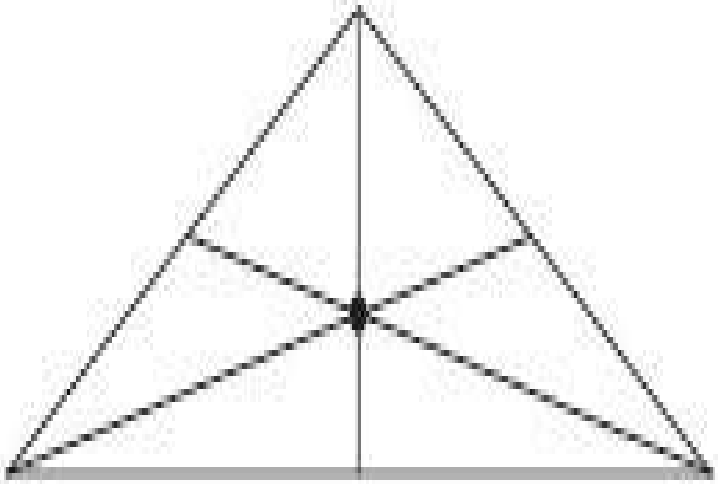
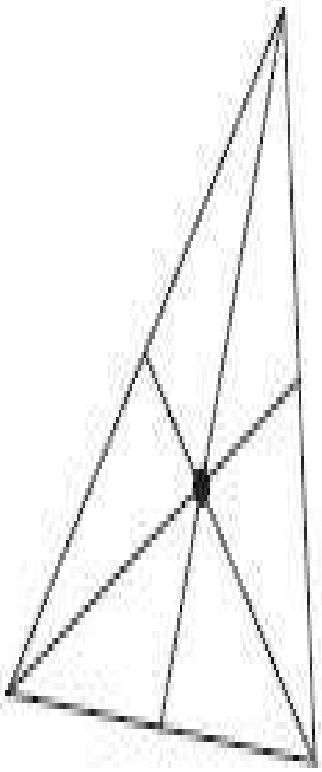
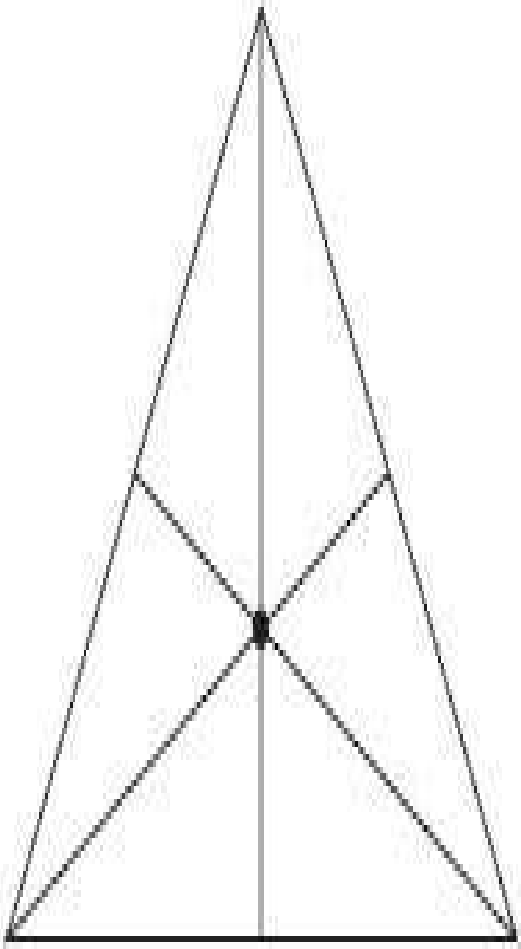
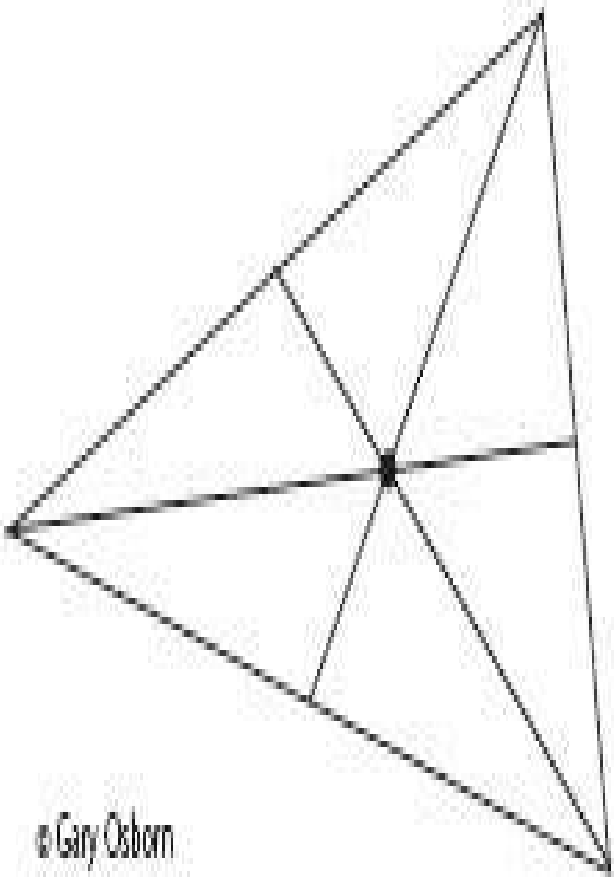
Figure 11.3a. The incenter centroid

2. The barycenter: This point requires a line to be drawn from each of the triangle’s vertices to the midpoint of the opposite parallel. The intersection point of the lines is then plotted, and this point becomes the triangle’s barycenter centroid.









© Gary Osborn

Figure 11.3b. The barycenter centroid

3. The circumcenter: This point requires a circle to be circumscribed around the triangle in such a way that its perimeter touches all three vertices of the triangle. The center of the circumscribed circle is then plotted, and this point becomes the triangle’s circumcenter centroid.

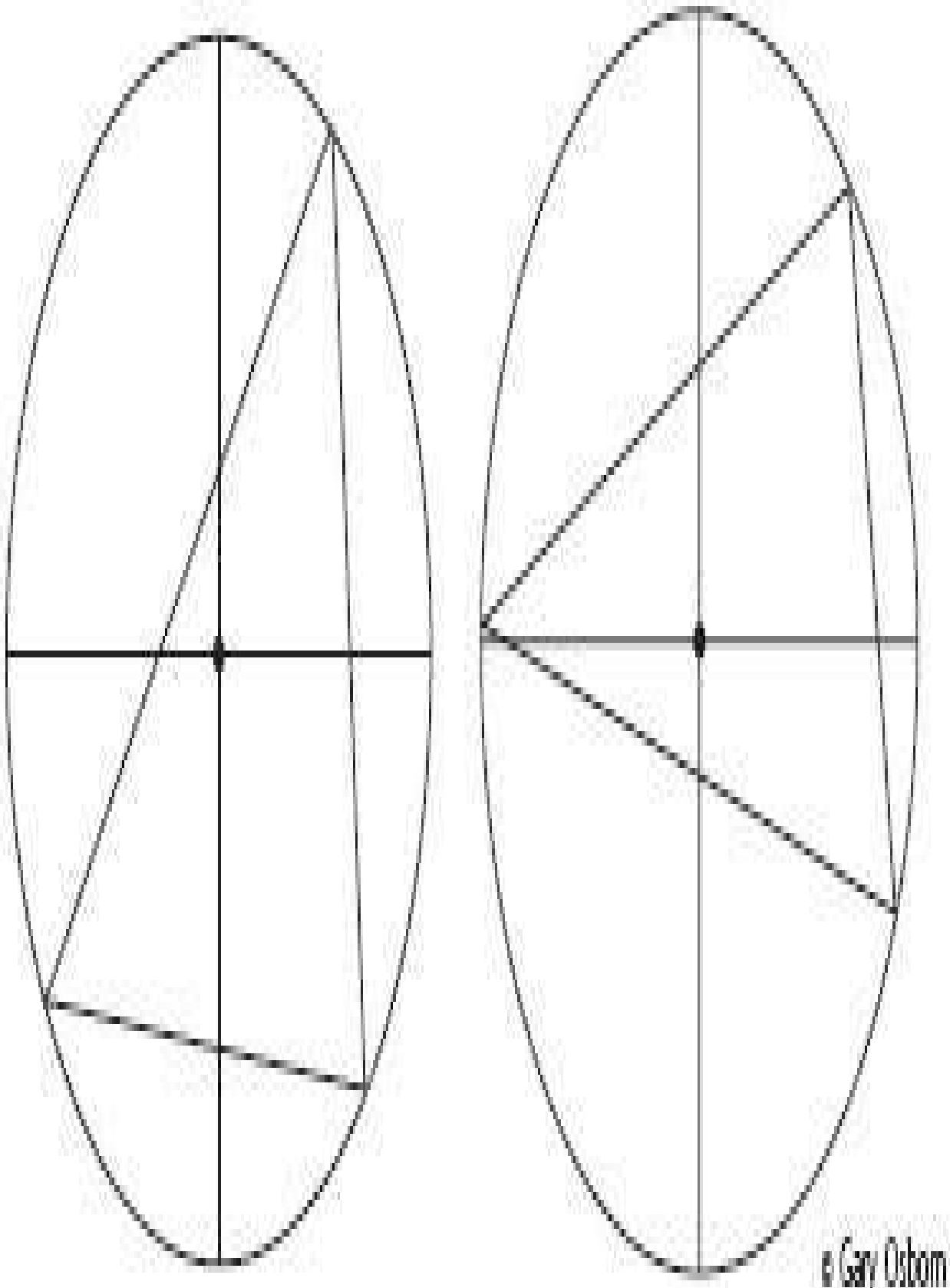

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Figure 11.3c. The circumcenter centroid, two examples

If we now overlay each of the three different centroid types outlined above to one triangle, we have a tricentroid arrangement that is unique to a particular triangle and its orientation (figure 11.3 d).

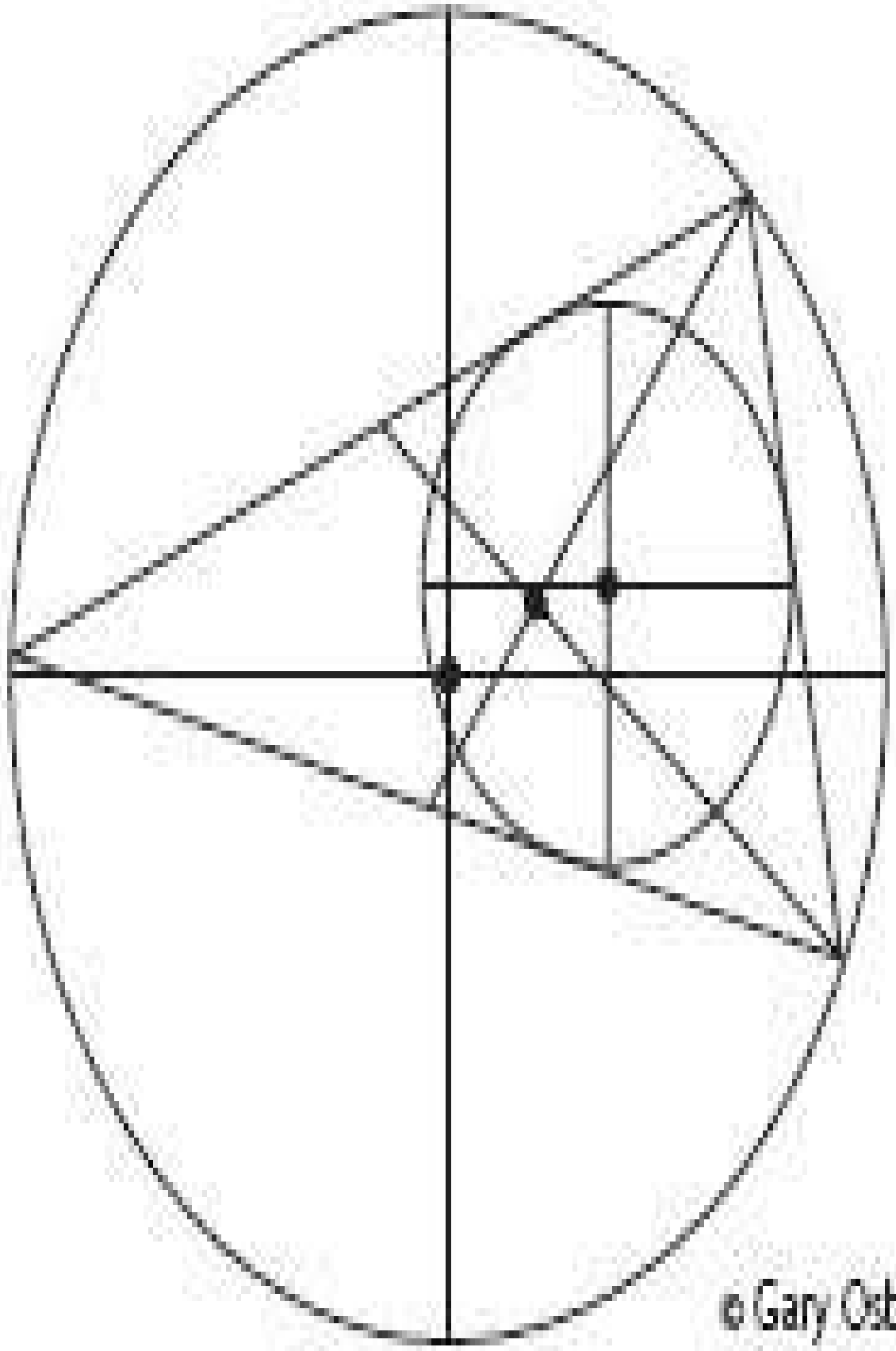
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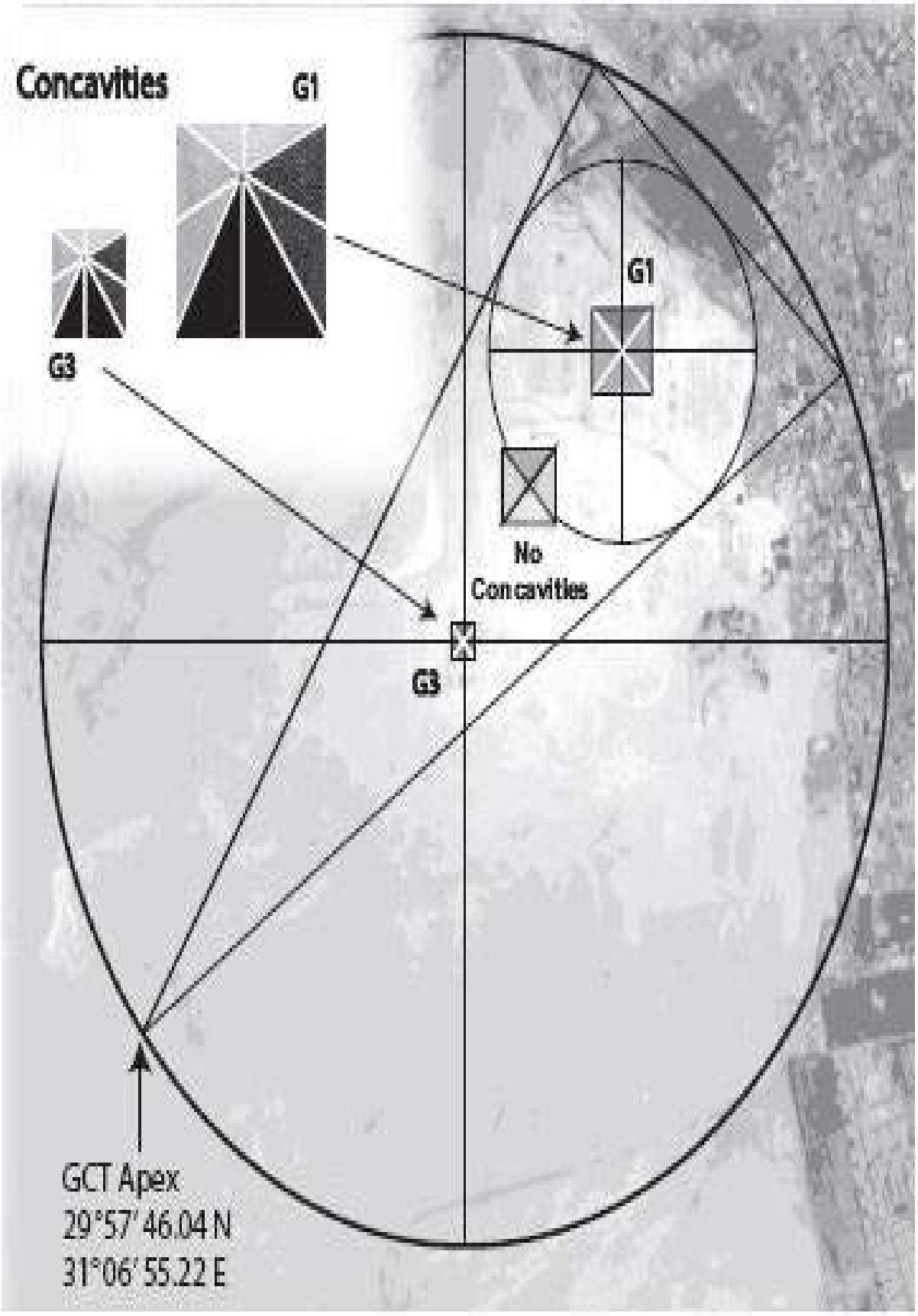
Figure 11.3d. The tricentroid arrangement will produce a unique triangle oriented in a particular direction.

If we now treat the three main Giza Pyramids as centroids as shown in figure 11.3d, we can then reverse-engineer the triangle (and its orientation) that this particular arrangement of the three centroids (pyramid centers) would produce (figure 11.3e on page 296).

We can now see that the triangle that is reverse-engineered from the three pyramid centers (centroids) triangulates or targets a very specific location in the Egyptian desert to the southwest of the Giza plateau (figure 11.3e, right). Notice also how the centroids of the pyramids of Khufu (incenter) and Menkaure (circumcenter) have their centers determined with the use of a cross—just like the concavities on these two pyramids, which also appear (from overhead) as a cross.

GCT Apex
29°57 46.04 N
31°08 55.22 E

Figure 11.3e. Left: The tricentroid arrangement of the three Giza pyramids —each of which conforms to the incenter (G1), the barycenter (G2), and the circumcenter (G3)—will produce a unique triangle oriented in a particular direction. Right: The Giza centroid triangle (GCT) and apex point.


Concavities
G1
G3
G1
No
Concavities
G3
GCT Apex
29°57' 46.04 N
31°06' 55.22 E

© Gary Osborn

Figure 11.4. The concavities of G1 and G3 may hint at their latent centroids.

In this sense, it could be considered that the concavities (which can—in certain lighting—be observed from the base of the pyramids) may, in fact, have been deliberately placed on the faces of these two pyramids to present a hint to their latent centroid geometry, a hint for those with the math to see that through the application of simple centroid geometry, the hidden location of a secret recovery vault of Osiris might then be known and its contents recovered.

So, could it be that the hidden recovery vault—the unseen, secret chamber, the fourteenth part of Osiris—is buried under the sands at the apex point of the Giza centroid triangle (GCT) (figure 11.4)?

In Search of the Secret Chamber

In consideration of this possibility, in March 2008, Scott Creighton set out for Egypt in an attempt to reach this apex point, first from the north (via the Giza necropolis), but he found a considerable obstacle in his way (figure 11.5).

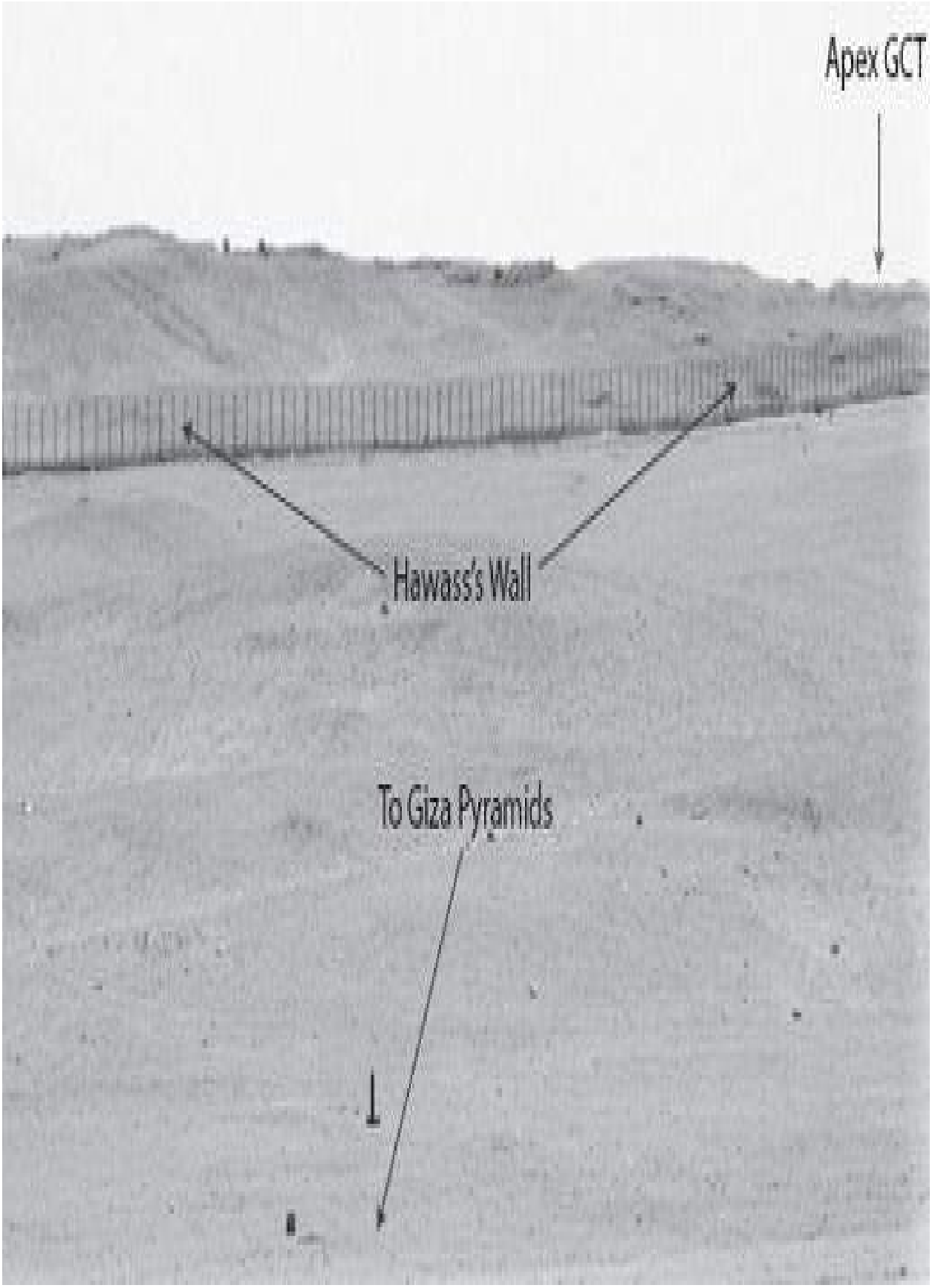

Apex GCT
Hawass's Wall
To Giza Pyramids

Figure 11.5. Hawass's Wall blocks access to the GCT apex location; photo by Scott Creighton.

Creighton next attempted to reach the GCT apex by circumventing Hawass's Wall, heading southwest around the perimeter of the Giza plateau.

As he journeyed around the perimeter of the Giza plateau (some six kilometers or so), it quickly became clear just how seriously the local Egyptian police took the security of the Giza monuments, with mounted police (on camels) and manned security towers.

1742.4 ft (531.08m)
Apex GCT

Figure 11.6. The route to the GCT apex circumventing Hawass's Wall

Figure 11.7. Another view of the route to the GCT apex circumventing Hawass's Wall; photo by Scott Creighton

Certainly there have been some security problems in Egypt in recent times with tourists being kidnapped, terrorist bombings, civil uprisings, and so forth, so we can understand why the Egyptians take their security so very seriously. Strange though, that the security at the main entrance to the Giza necropolis to the north of the Great Pyramid is—by contrast—quite relaxed. Plenty of antiquities police around, but no bag searches, no metal detectors—nothing. Odd.

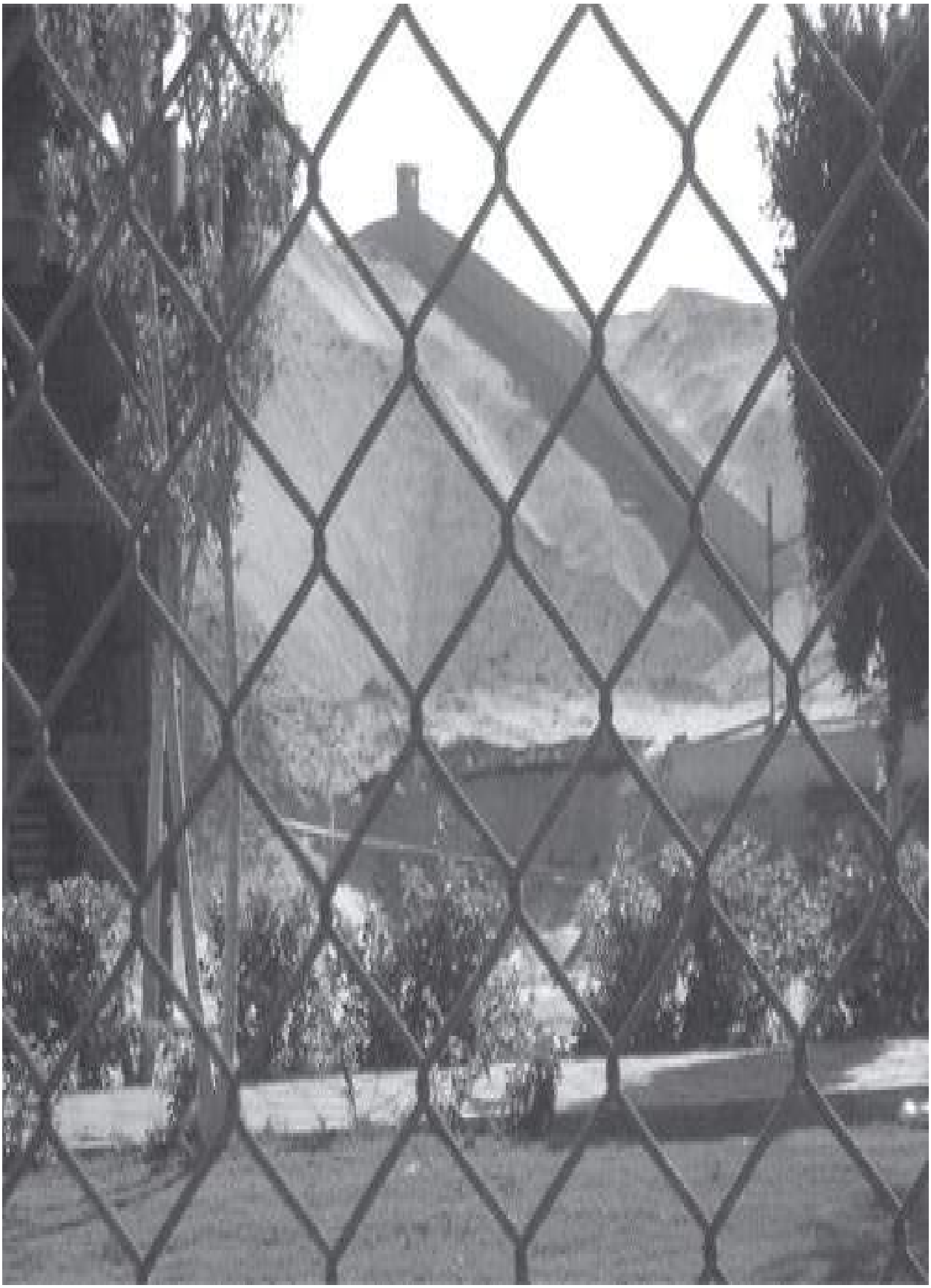


Figure 11.8. The route to the GCT apex circumventing Hawass's Wall; photo by Scott Creighton

This is when Creighton began to question whether Hawass's Wall was really for the protection of "guests of Egypt" (as Dr. Hawass put it to him in an e-mail) or more about preventing these guests from inadvertently wandering into a restricted area.

Continuing down the main road south, it gradually became clear to Creighton that it would be impossible to reach the GCT apex point from the south (from the other side of Hawass's Wall).

In short, attempting to reach the GCT apex point from the north (via the Giza necropolis) is terminated by the obstruction of Hawass's Wall (not to mention armed mounted police and also police in the watchtowers). Attempting to circumvent the wall by walking around it to arrive at the apex point from the south, the path is again obstructed by another security fence that extends for as far as the eye can see.

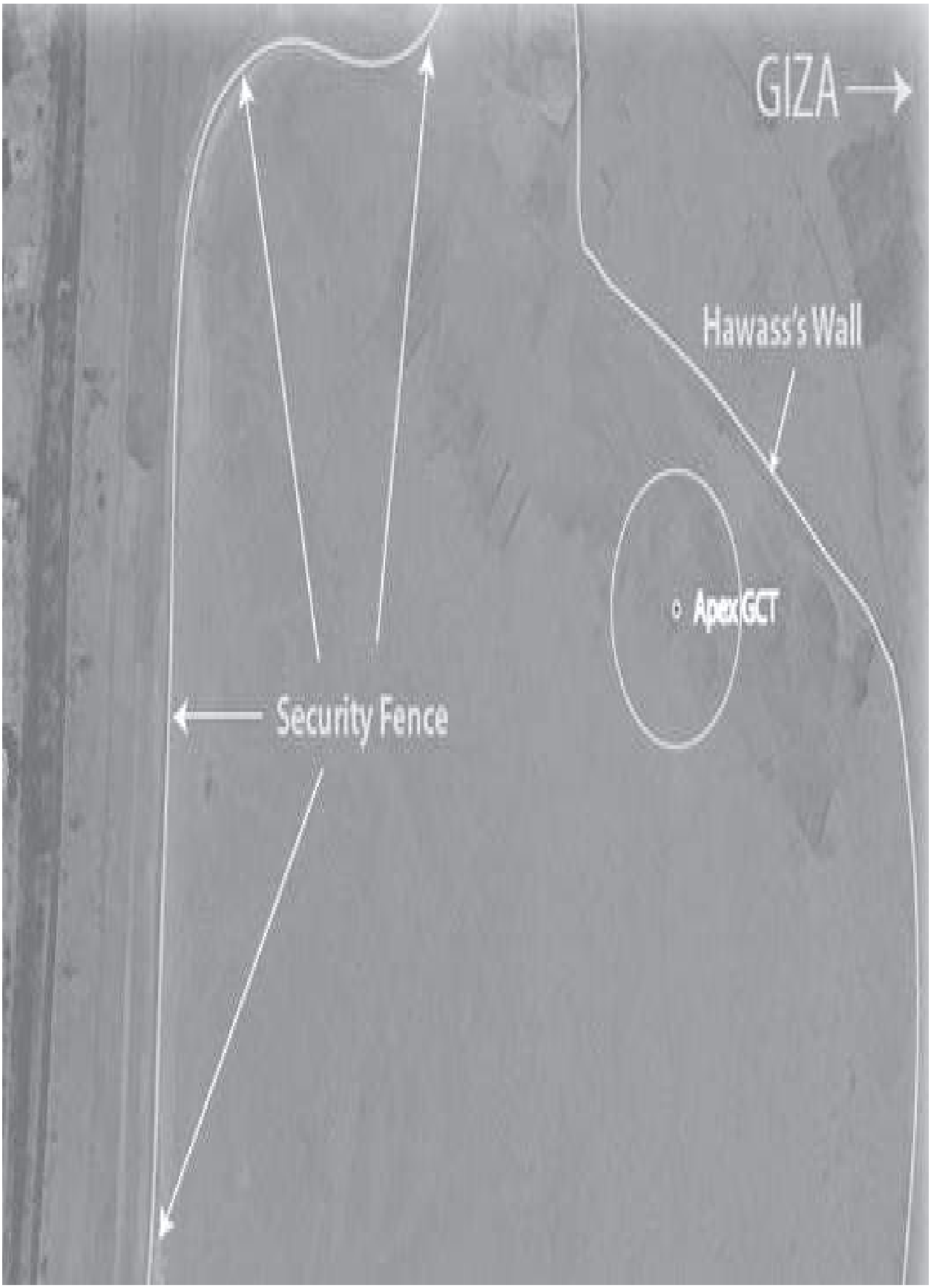

GIZA
Hawass's Wall
Apex GCT
Security Fence

Figure 11.9. The GCT apex sealed off in no-man's-land

The location of the GCT apex is effectively sealed off by Hawass's Wall and a second security perimeter fence (figure 11.9). As stated, there seemed to be no logical reason for this double fence; they are certainly not found at other sacred sites such as Saqqara or Meidum. Why would such a series of fences and walls effectively be creating a noman's- land, sealing off an area where there is nothing but sand dunes? Could it be that this restricted area—the location of the GCT apex—is indeed concealing something under its ancient sands, something the Egyptian authorities have already detected and felt it important to keep to themselves?

A quick survey of this area with Google Earth reveals something rather peculiar on the ground at this location (figures 11.10 a–b).

A closer examination of this area revealed that the grid is formed by the careful placement of long lines of small, white rocks. When the question as to what this grid might have been used for was raised, it was suggested that they were perhaps lines constructed to mark out overflow parking bays for the coaches of the former Open Air Theatre at Giza that once stood slightly to the west of Rachaf 's pyramid.

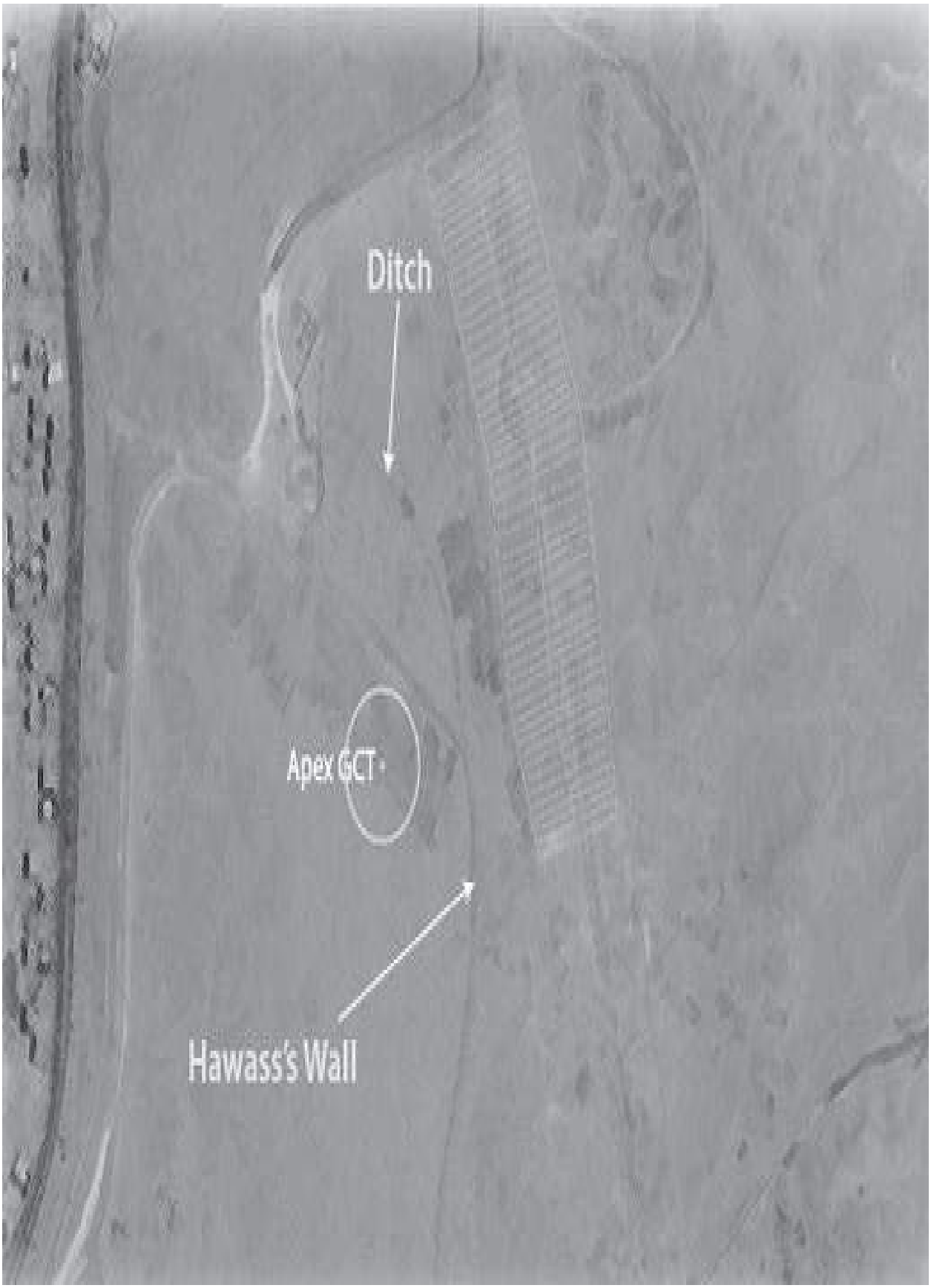

Ditch
Apex GCT
Hawass's Wall

Figure 11.10a. The grid at the GCT location

Apex GCT

Figure 11.10b. The grid (highlighted)

However, a quick look at figures 11.10a–b tends to discount this suggestion. A rough measurement of this highlighted "overflow parking area" (using Google Earth) shows that it is approximately a little over one kilometer long by one-quarter of a kilometer wide!

Given that the audience capacity of the open-air theater was only 5,000, it seems somewhat peculiar that such a massive overflow parking area would be required when a new parking lot with up to 4,000 spaces had already been created close to the theater. Samir Farag, head of the Cairo Opera House, explains:

The Aida 2002 production shows a noticeable improvement in facilities and services over previous shows. A service area has been set up in the theatre's court area for food and beverages, rest rooms and a 4,000-car capacity parking lot.[3]

The grid area highlighted in figures 11.10a–b covers approximately 2,300,000 square feet. If we assume an average car footprint of 40 square feet (which is quite generous) by 4,000 cars, the area used is 4,000 × 40 = 160,000 square feet. In other words, the area highlighted in the figures—if this was indeed used as an overflow parking area—would hold the equivalent of 56,000 cars, which is eleven times the capacity of the theater. This is also roughly equivalent to around 1.5 coaches for every person in the theater audience! Now that—56,000 cars or 7,500 coaches—is quite some overflow parking area!

Does this seem like a reasonable explanation for this peculiar grid feature next to the GCT apex location? Or is there perhaps some other explanation? Could it be

that this grid (marked out by white stones) might in fact be a GPR (ground penetrating radar) scan grid? Are the Egyptian authorities perhaps already searching for something under the ground at this location identified by the centroid geometry of the Giza pyramids? Could they perhaps be in search of a secret vault at the very location the Giza pyramids point to using the centroid geometry?

Or has such a secret recovery vault of Osiris already been discovered at this significant location by the Egyptian authorities? In consideration of this question, more recent images of this general area have revealed that the Egyptian authorities have completely excavated and leveled the ground that contains the apex point of the GCT and have built some structures close to it. At the time of writing we have little idea as to the nature and purpose of these structures at the apex point. We can only hope that if something important has been discovered in this area, the Egyptian authorities would make known precisely what, if anything, has been discovered.

In such a hidden vault, we may finally find the answers to some of the most perplexing unanswered questions of our past, the truth of who these highly sophisticated, scientifically astute architects and builders of the Golden Age period of ancient Egypt actually were, and why they were so determined to build so many of these massive monuments in such a short space of time.

For the moment, however, all we can continue to do is what Galileo Galilei did hundreds of years before our time—interpret the available evidence with a mind free of seemingly flawed paradigms, a mind divorced from hidebound dogma, and a mind that is prepared to question the status quo when that status quo can offer no logical answers to some of the most perplexing questions of our most ancient past, questions of who we are and where we came from. And, in so doing, we might finally be able to fully understand what, if anything, these ancient architects and builders of the giant pyramids of ancient Egypt might have been trying to convey to their descendants and, ultimately, to us.

If there is indeed an astronomical message within the structures at Giza, our civilization would be wise to try to understand it and learn from it, for, if the hypothesis we have presented in the pages of this book is more correct than not, it would seem that the Great Pyramids were built to convey to us our past and our future—of what to expect and when to expect it.

This is The Giza Prophecy.

Chapter 11 Summary

The Great Pyramid and the Pyramid of Menkaure present unique architectural features in their construction known as concavities, which equally divide each face of these two pyramids, making them eight-sided structures.

There were three centroids known in the ancient world: incenter, barycenter, and circumcenter. It may be that the concavities of the Giza pyramids hint at their latent centroids, that centroid geometry is to be used.

The three most ancient centroids can be used to reverse-engineer a triangle of a particular dimension and orientation. In doing this for the three centers of the Giza pyramids, we can create a unique triangle that points to a particular location to the southwest of the Giza plateau.

A hidden vault may be located under the sands at this location.

The Myth of Osiris tells how the body of Osiris was cut into fourteen pieces and that Isis could find only thirteen of those pieces—the fourteenth part remaining hidden. Curiously, we find that in the Old Kingdom pyramids (including the six so-called Queens' Pyramids at Giza), there are thirteen finished pyramids. We exclude Radjedef's pyramid from this period, since it is likely that this pyramid is a structure of the later Old Kingdom. It may be that the final fourteenth part (vault) of Osiris will be found at the apex point indicated in the centroid geometry of the Giza pyramids. Thus the three Giza pyramids may hold the key to discovering this hidden vault, which the Corpus Hermeticum tells us "will be opened by three."

APPENDIX 1

PRECISE ANGLES

It is more than probable that the builders of the Great Pyramid were not as precise in their intentions as many of us imagine. It is a human instinct to be as precise as we can, and, therefore, it is only natural that we would prefer to know the exact values of the angles we find in the Great Pyramid down to the nth degree; however, we are well aware that in demanding precise values, one is in danger of entirely missing the point.

Were the architects or, for that matter, the builders of the Great Pyramid as precise as we are today? Were they concerned with fractions of a degree? Perhaps up to a certain point, yes, but in being too precise, we really don't want to overstep the whole thing and lose the simplicity of the meaning that we feel is meant to be extrapolated and comprehended here.

The following angle values based on Petrie's measurements of the Great Pyramid of Giza were calculated and kindly presented to us by Spiros Boutsikos.

In his own words:

Using Petrie's measures—that is mean height of the King's Chamber, base height from ground level we compute that the middle of the King's Chamber height from ground level is:

$$[(1923.7" + 1921.6") / 2 + 1692.8"] / 2 = 87.7005 \text{ rc}$$

Now taking into account the exact width of King's Chamber and its distance from the pyramid center we compute the horizontal distance from the corner using the half base length:

$$115.182\text{m} – 330.9" – (5.24\text{m} / 2) = 198.9414 \text{ rc}$$

Thus the angle y is:

$$y = \tan^{1} (87.7005/198.9414) = 23.7896°$$

The King's Chamber center-Great Pyramid apex angle based on Petrie measures is 6.242°.

Now computing the mean height of the Queen's Chamber is tricky. We need to compute the cross section area and then equate it to a parallelogram with a width equal to the width of the same chamber. This is the volumetric center of the chamber (notice the top part is a triangle):

$$[184.47" + (245.1" – 184.47") / 2] / 2 + 834.4" = 45.6904 \text{ rc}$$

Thus the angle t is:

$$t = \tan^{-1}(45.6904 / 220) = 11.7326°$$

$$2 \times 11.7326° = 23.4652°$$

Throughout the main text we have expressed the angle values of 23.5°, 6.5°, and 30°.

These values are directly related to the recognized and established geophysical knowledge we have of Earth today—the obliquity of its axis to the ecliptic—and the location of the Great Pyramid, which has a direct orientation relationship to this obliquity. Therefore these particular values are our touchstone, our criterion. After all, it is through these angles and their values that one immediately recognizes a geophysical connection here.

We are well aware that in using these particular values we also encounter a problem. According to the Milankovitch theory, which has largely been accepted, the tilted axis slowly shifts only between 22.1° and 24.5° and back again over a period of 41,000 years. It is said that the angle of the axis is now decreasing and at a rate of 1.19 meters per century.

Egyptologists say the Great Pyramid was constructed during the Fourth Dynasty period, between ca. 2500 and 2400 BCE. The obliquity of the axis at this time has been calculated to be around 23.96°—almost 24°. In arc-hours and -minutes, this figure is 23°, 58 minutes.

Again, at present the exact figure for the obliquity (incline) of the axis is 23.44°, and in arc-hours and -minutes, it is 23°, 26 minutes. However, as mentioned, the obliquity angle of 23.5° is popularly used as a general figure, and so for many it

is one that is instantly recognized.

We have to operate within tolerances, and given the enormous size of the pyramid, if the true values of the angles from each of the three vertex points to the chamber centers are within less than half a degree of the geophysical angles that relate to us today, as well as the angles relating to the era of the Fourth Dynasty, then we can feel reasonably sure that the correlation we are observing with these chamber angles and Earth's obliquity is meaningful—and this is indeed what we find.

Again, 23.96° is still within half a degree of 23.5°, the recognized figure we use today. Of course, if the obliquity of the axis at the time the Great Pyramid was constructed was almost 24°, then ideally this would be the figure we should be aiming for, and we are well aware of this.

However, as we will see, we find that the precise angles given to us by Boutsikos (based on the more reliable measurements of the Great Pyramid to date) fall well within a third of a degree either way—within a third of a degree of the geophysical angles that relate to us today and within a quarter of a degree of the angles relating to the era of the Fourth Dynasty when the Great Pyramid was supposedly built.

Let's now examine the angle values passed on to us by Boutsikos, and for clarity we will round off the fractions of these values to two decimal places.

1. The south vertex to the center of the King's Chamber is 23.78°. This value is within the correlative margin of 23.5° to 24°—well within half a degree. In fact, the difference is only 0.28 of a degree—within a third of a degree.

If, on the other hand, the architects were trying to work to an angle close to 24° —that is, 23.98°—then the difference between 23.98° and 23.78° shows a discrepancy of only 0.20 of a degree—one-fifth of a degree. The mean difference between the two: 0.48 of a degree—again, less than half a degree.

2. The Great Pyramid apex to the King's Chamber center is 6.24°. Again, this value is within the correlative margin of 6° to 6.5°—within half a degree. In fact, the difference is only 0.26 of a degree—within one-third of a degree and closer to a quarter of a degree.

For us, the 30° north latitude of the Great Pyramid gives these two values their meaning and the reason why they are there within the geometry of the Great Pyramid. So:

$$30° – 23.78° = 6.22°$$

Boutsikos's value is 6.24°—a discrepancy of only 0.02 of a degree—which is less than the 3 arc-minute discrepancy of the Great Pyramid's alignment to the four points of the compass. So again these two angles are in exact correlation with the geophysical picture of the tilted Earth and are both in relation to the Great Pyramid's location.

Let's now work to the condition of Earth and the Great Pyramid's location during the time of the Fourth Dynasty.

$$30° – 23.98° = 6.02°$$

Again, compared with Boutsikos's value of 6.24°, this gives a discrepancy of 0.22 of a degree—within one-quarter of a degree.

3. According to Boutsikos's calculations, the north vertex to the center of the Queen's Chamber is not 11.75° but 11.73°—but again, this is only a discrepancy of 0.02 of a degree.

$$2 \times 11.73° = 23.46°$$

Almost spot on 23.5°—a difference of only 0.04 of a degree.

What about the obliquity value for the axis during the Fourth Dynasty?

$$23.98° \div 2 = 11.99°$$

$$11.99° - 11.73° = 0.26°$$

Again, a quarter of a degree difference. Altogether, the difference between the precise angle values, 23.78° and 6.24°, as calculated by Boutsikos using Petrie's measurements of the Great Pyramid and the geophysical values that relate to us today, 23.5° and 6.5°, is within 0.28 of a degree—not within half a degree, but well within one-third of a degree.

Working the other way, the difference between the precise angle values within the Great Pyramid and the angles that relate to the era of the Fourth Dynasty, 23.98° and 6.02°, is within 0.22 of a degree—within a quarter of a degree.

So the angles we have found within the geometry of the Great Pyramid can work either way:

A. The correlating values of the angles found within the Great Pyramid match, by one-third of a degree, the geophysical condition of Earth as we know it today, as referenced by the Great Pyramid's location on Earth; and, after all, it is through this geophysical data that we recognize and identify the connection here.

B. The correlating values of these angles are also within a quarter of a degree of the geophysical condition of Earth as referenced by the Great Pyramid's location on Earth at the time of the Fourth Dynasty, when the Great Pyramid is believed to have been constructed.

And what if we add together the precise values passed on to us by Boutsikos to find the second of the Great Pyramid's two distances from the ecliptic plane?

$$23.789° + 11.732° + 11.732° + 6.242° = 53.495°$$

Only 0.005 of a degree short of 53.5°!

What about the sum total of these angles in relation with the number of course levels, as illustrated in figure 6.17? How do these precise angles given by Boutsikos compare? The precise figure for the angle that connects the north vertex with the center of the King's Chamber is not 20° but 19.98°—a difference of only 0.02 of a degree.

Using the precise angles as calculated by Boutsikos:

$$23.78° + 6.24° + 19.98° = 50°$$

A straight 50!

An interesting fact is this:

$$23.78° + 6.24° + 19.98° = 50°$$

Add the angle of the Ascending Passage:

$$50° + 26.3° = 76.3°$$

$$76.3° \div 2 = 38.15°$$

$$90° – 38.15° = 51.85°$$

Almost exactly the angle of the sides of the Great Pyramid.

This time we will also add the angle of the Descending Passage:

23.78° + 6.24° + 19.98° + angle of AP, 26.3° + angle of DP, 26.3° = 102.6°

Very close to the sum value of the angles of the two King's Chamber shafts—both of which, as previously noted, exit the pyramid at the 102nd course level (figure A.1).

We can certainly live with these more precise values as calculated by Boutsikos, as they work just as well. We are content that the angles from each of the three points and each to the centers of the two chambers are well within the correct ballpark, in that they do indeed correlate and present us with meaning.

Again, our main reason for using the values of 23.5°, 6.5°, and 11.75° in the main text is that it is a much quicker, simpler, and neater way of presenting this idea.

In using the ideal values that relate to us today, one would perhaps grasp the geophysical association immediately, and after days, weeks, months, even years of analyzing everything we have presented here, we feel justified in presenting this material in this way.

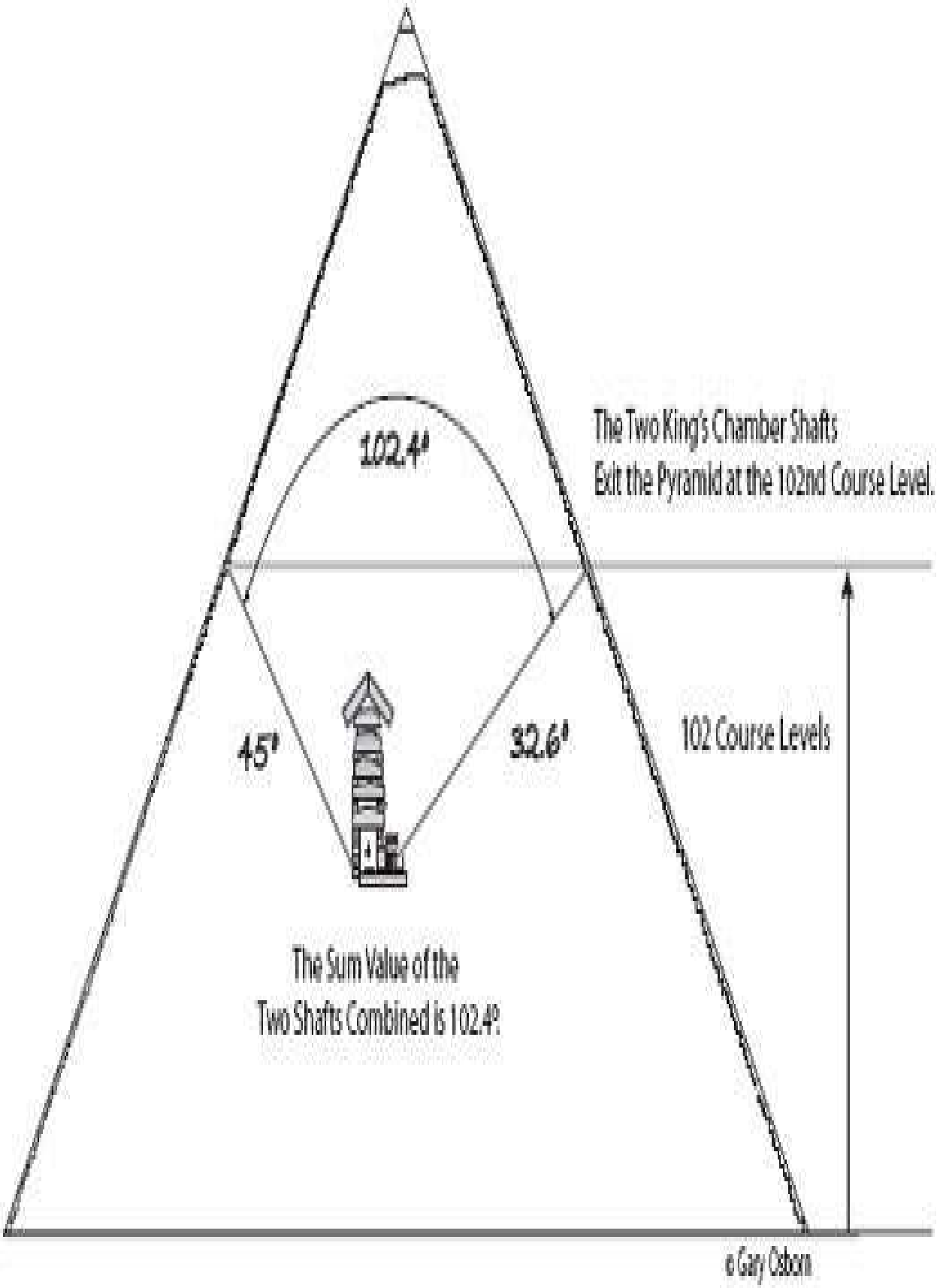

102.4°
The Two King's Chamber Shafts
Exit the Pyramid at the 102nd Course Level.
45°
32.6°
102 Course Levels
The Sum Value of the
Two Shafts Combined is 102.4°.
© Gary Osborn

Figure A.1. Further evidence that the number of course layers reflects the degree values of the angles found within the Great Pyramid

After all, if one plots the angles 23.5°, 6.5°, and 11.75°, nevertheless one would discover that these angles fall well within the boundaries of the chambers and are only a fraction of a degree short of the distance from the centers of these chambers. And again, we would get more or less the same result if we were to plot the angles 23.98°, 6.02°, and 11.99° (figure A.2 on page 312).

Our point is that in using these approximate values, and despite the obliquity time period one is keeping to, one would still recognize the connection immediately and would still be able to match and superimpose the two diagrams —Earth and the Great Pyramid.

After this, one would endeavor to obtain more precise values for these angles and would eventually get more or less the same results we are presenting here, but given the size of the Great Pyramid and the enormous task and practical burdens the architects and builders had taken upon themselves to attain the level of perfection we are looking for, accepting these tiny discrepancies is not too difficult.

Of course, these slight discrepancies will immediately be seized on by those who simply will not accept this hypothesis, as it would violate much of what we think we understand about the pyramids and the people who reputedly built them. Such individuals would argue against these findings, people who would readily dismiss any question of intent on behalf of the architects—who we are saying had purposefully planned the Great Pyramid and its internal features around these geodetic-related angles.

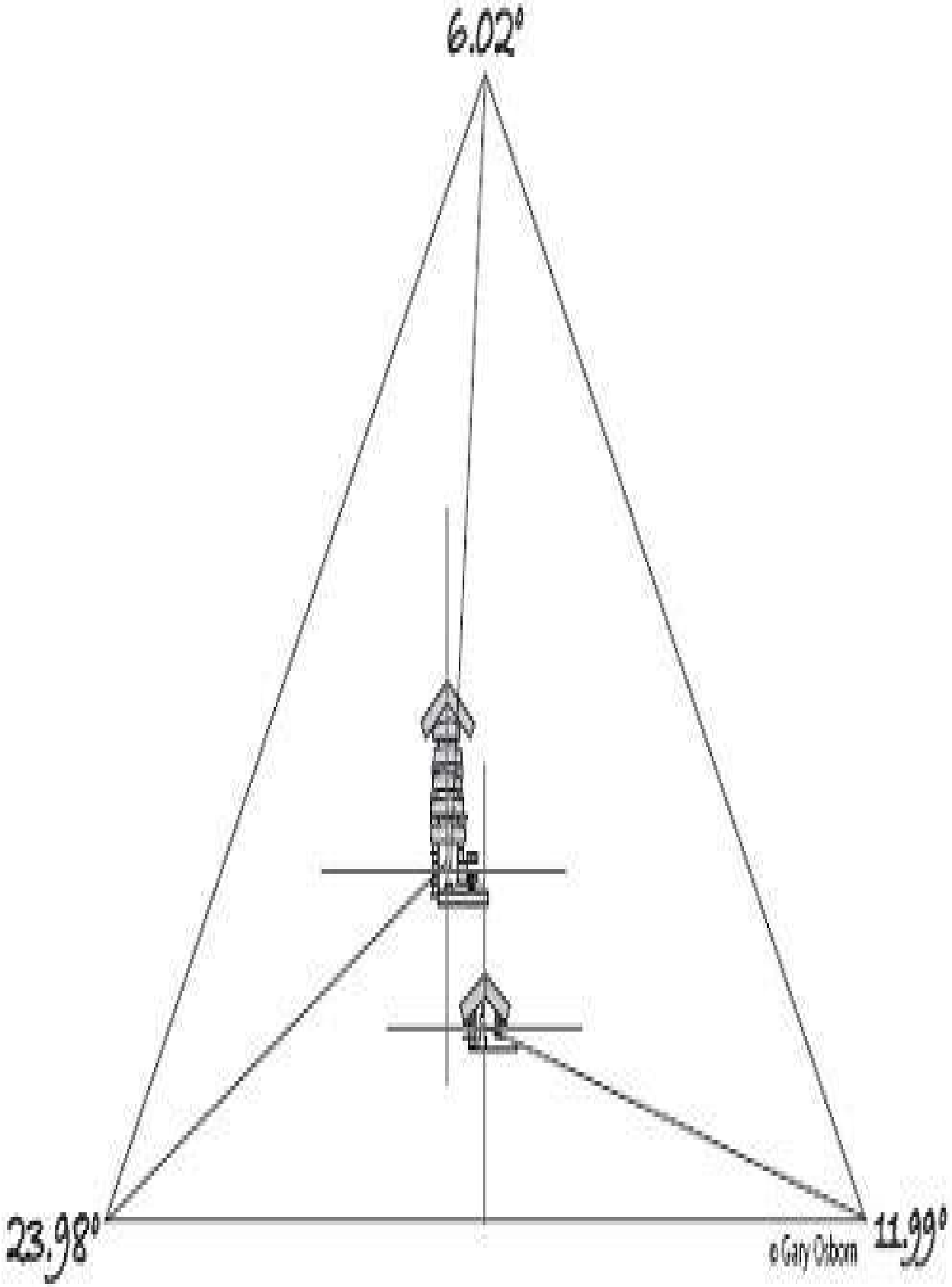

6.02°
23.98°
11.99°
© Gary Osborn

Figure A.2. The angles of 23.98°, 6.02°, and 11.99° still fall very close to the centers of the chambers—close enough to contend that there may be a geophysical connection here.

But seriously, would anyone now question the intent of the architects to orient the Great Pyramid to the four points of the compass (its entrance face aligned with true north) because it is out by 3 arc-minutes? This is essentially the simple point we are making here.

The authors would like to express their sincere thanks and appreciation to Spiros Boutsikos for providing the precise values of these angles based on his calculations of the Petrie measurements of the Great Pyramid of Giza.

APPENDIX 2

INTERNET RESOURCES

The following websites provide cutting-edge research and dialogues relevant to the study of the first pyramids of ancient Egypt from both mainstream and alternative perspectives. We recommend them for those interested in learning more about both sides of the controversial debate we present in this book. These websites contain a wealth of in-depth articles and academic papers that readers may find useful in further pursuing their own interest in this field.

Scott Creighton Official Website

www.scottcreighton.co.uk

The official website of author Scott Creighton provides essays, presentations, galleries, and events, “In search of the lost knowledge of the ancients.”

Gary Osborn Official Website

http://garyosborn.moonfruit.com/#/welcome/4516007036

The official website of author Gary Osborn, featuring articles, books and publications, reviews, a message board, and more.

The Ancient Egypt Site

www.ancient-egypt.org/index.html

This highly informative website covers the extensive history of ancient Egypt from a fairly mainstream perspective.

In the Hall of Ma'at:

Weighing the Evidence for Alternative History

www.hallofmaat.com

The Hall of Ma'at website is one of the foremost sites for the discussion of ancient Egyptian issues—past and present—from a largely mainstream point of view. The site contains numerous and informative articles relating to ancient Egypt and some of the controversies that surround it.

The Official Graham Hancock Website

www.grahamhancock.com

Graham Hancock's website is one of the foremost sites for the discussion of ancient Egyptian issues—past and present—from a mainly alternative point of view, although the site welcomes all points of view for discussion. The site contains numerous and informative articles relating to the mysteries of our history and our existence.

Rational Spirituality

www.ianlawton.com/as1.htm

Ian Lawton, coauthor of Giza: The Truth, provides an excellent resource for matters relating to ancient Egypt, with many interesting articles, some of which challenge the accepted chronology of some aspects of ancient Egypt.

The Obliquity of the Ecliptic

www.setterfield.org/Dodwell_Manuscript_1.html

This site hosts the work of Australian mathematician George F. Dodwell. Dodwell's research finds evidence that Earth's obliquity in ancient times was far different than what modern theory suggests it should have been.

Collected Essays of Immanuel Velikovsky

www.varchive.org/ce/index.htm

On this site are hosted the collected essays of Immanuel Velikovsky, some of which contain excellent information on the science of radiocarbon-14 dating and its limitations.

Carbon-14

www.detectingdesign.com/carbon14.html#Minor

The website of Dr. Sean Pitman is an excellent resource for understanding the sciences of radiocarbon-14 dating, dendrochronology, ice-core dating, and others. The site raises numerous issues with these sciences in a very readable and informative style.

The Geometry of the Air Shafts

www.legon.demon.co.uk/geomgp.htm

This is the website of John R. Legon, a highly respected mathematician and researcher of ancient Egyptian history.

The Upuaut Project

www.cheops.org

The website of Rudolf Gantenbrink hosts the research of his robot, Upuaut, which surveyed the shafts of the Great Pyramid. An excellent resource with many drawings and photographs of the interior of the Great Pyramid and its shafts.

The Great Pyramid—Reflections in Time

www.biblebelievers.org.au/pyrmindx.htm

This is the website of independent researcher John Tatler, who presents his own findings regarding the pyramids of Egypt.

Ancient Wisdom

www.ancient-wisdom.co.uk/egyptastronomy.htm

The website of independent researcher Alex Whitaker is an excellent resource for all things ancient.

Pyramid Mysteries

http://doernenburg.alien.de/alternativ/pyramide/pyr05_e.php

Amateur Egyptologist Frank Doernenburg's website hosts many informative articles on ancient Egypt and discusses many of its controversies from a mainstream perspective.

FOOTNOTES

Chapter 1

*1. During November 2005, because of his interest in numerous Renaissance and baroque paintings long rumored to contain a cipher or code, I decided to show researcher Don Barone my own discoveries of the 23.5° angle that I had found encoded in various paintings and other important sources throughout history. Since then, and while also publicly acknowledging my own part in this, for which I thank him, Barone has discovered these angle references in the paintings I mentioned and others. One of these was Vitruvian Man by Leonardo da Vinci. Don sent me his find, and I discovered additional data related to this. Soon after this Jeff Nisbet, who was also interested in my research and had been a correspondent on the e-mails between Barone and me, made an additional discovery himself in 2007 of these 23.5° angles in Vitruvian Man, which he published in his article "Rosslyn Chapel's Darkest Secret" (www.mythomorph.com/mm/content/2007/0908rosslyn_chapels_darkest_secret.php).

Chapter 2

*2. A strict interpretation of the Abydos King List in the Temple of Seti I gives the name of the second king of the Fourth Dynasty as Raufu, not Khufu. It is the contention of the authors that Khufu, who is traditionally regarded by mainstream scholars as being the second king of the Fourth Dynasty, ca. 2550 BCE, was—in all likelihood—the builder of the Great Pyramid, but may not, in fact, have been a king of the Fourth Dynasty; rather, he likely belonged to an earlier period. This will be discussed more fully later in this chapter.

*3. See the Svalbard Global Seed Vault, www.croptrust.org/main/arcticseedvaul-t.php?itemid=842.

*4. Cartouche is a relatively modern term. It was coined by Napoleon's soldiers at the time of his expedition to Egypt. Apparently the soldiers remarked on how similar the oval Shen-Ring design looked to the cartridges, or cartouches, used in their own rifles and guns.

Chapter 3

*5. It would seem from our investigation that the first Fourth Dynasty king to incorporate the solar disc of the god Ra might not, in fact, have been Radjedef (as held by conventional thought) but possibly his father, who we believe to have been Raufu.

Chapter 8

*6. As we noted earlier, a seked of 5.5 (5 palms and 2 digits) seems a somewhat peculiar choice of angle for the slope of the Great Pyramid. From a building-practice perspective, it would have been much more practical to have chosen a whole number seked such as 5 or 6. This suggests that the slope of the Great Pyramid (hence its apparent use of the fractional 5.5 seked) was more likely to have been the consequence of some other underlying design imperative.

*7. Values have been rounded.

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Chapter 1. The Axis and the Heretic

1. de Santillana, Crime of Galileo, 312–13.

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3. Higgins, Ancient Freemasonry, 16.

4. Lomas, Invisible College, 420.

5. Higgins, Ancient Freemasonry, 16.

6. Ibid., 224–26.

7. Toomer, “Hipparchus and Babylonian Astronomy,” 353–65.

8. Wikipedia, “Apocalypse.”

9. del Sarto, Sacrifice of Abraham.

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11. Ibid.

12. Higgins, Ancient Freemasonry, 105.

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14. Lomas, Invisible College, 421

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1. Aldred, Egyptians, 32.

2. Lehner, Complete Pyramids, 120.

3. Belmonte and Shaltout, In Search of Cosmic Order, 35.

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9. Dodwell, “Ancient Oriented Monuments.”

10. Bonani et al., “Radiocarbon Dates of Monuments.”

11. Ibid.

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13. Velikovsky, Ages in Chaos II, 245.

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15. Ibid., 249.

16. Velikovsky, “Pitfalls of Radiocarbon Dating.”

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2. Wieland, “Asteroid Tilts the Earth.”

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2. Bauval and Gilbert, Orion Mystery.

3. Gantenbrink, “Lower Southern Shaft.”

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